



**18TH NATIONAL
CONFERENCE ON
CHRONIC DISEASE
PREVENTION
AND CONTROL**

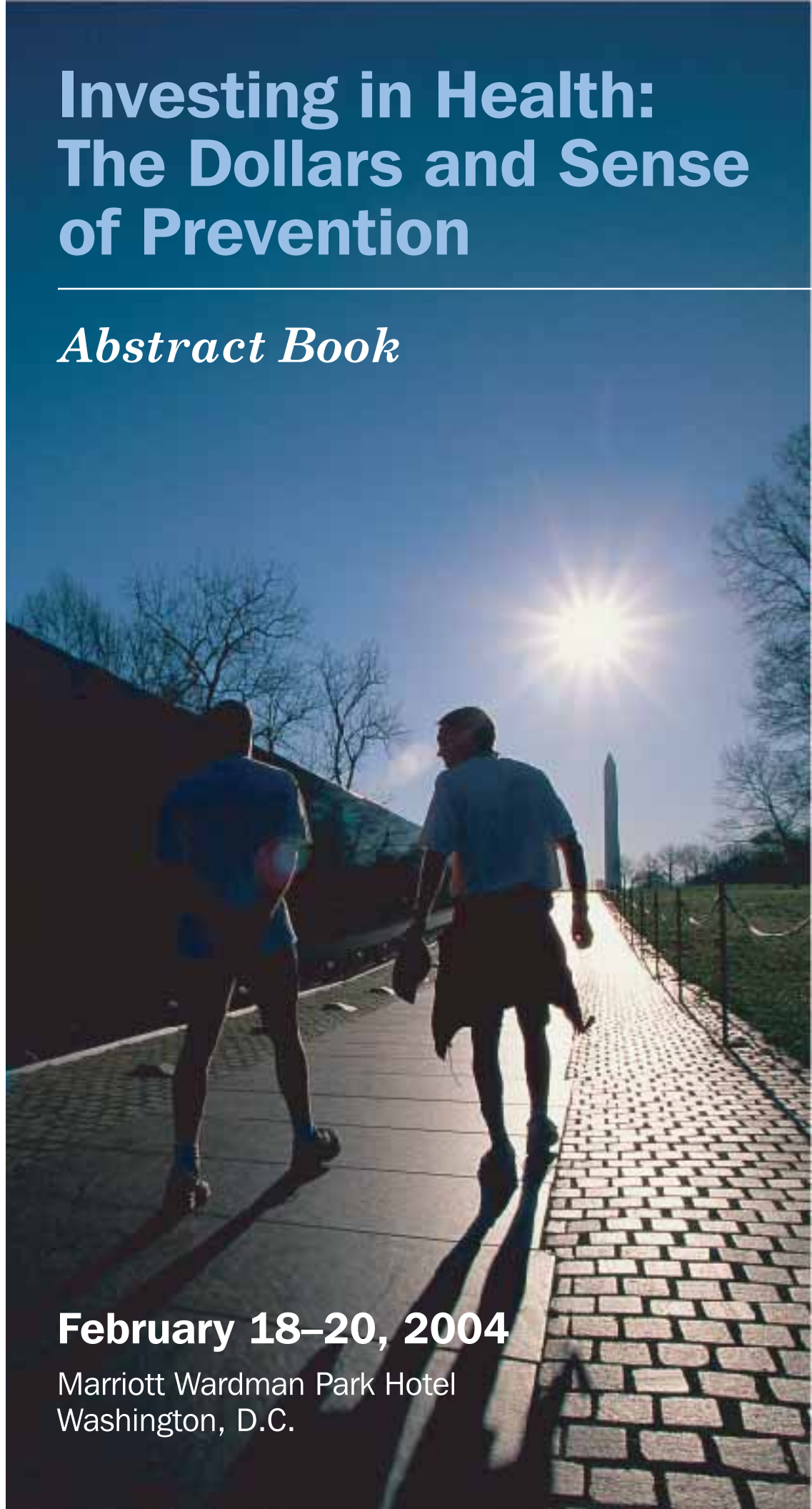


Prevention Research



Investing in Health: The Dollars and Sense of Prevention

Abstract Book



February 18–20, 2004

Marriott Wardman Park Hotel
Washington, D.C.



abstract presentation reference

Wednesday, February 18, 2004

Poster Abstract Presentations with Authors 12:00 p.m.—1:30 p.m.

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- Moving Right Along: A Creative Partnership Effort to Engage Older Adults in Physical Activity and Nutrition Programs
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- National Best Practice Study to Improve Physical Activity Programming for Older Adults
Abstract #OP-33 17

Emerging Issues in Chronic Disease

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- Genetics Policies to Prevent Chronic Disease and Promote Health
Abstract #OP-20 10
- The Birds and the Bees and Chronic Disease: A Team Approach to Chronic Disease
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Communities Combating Chronic Disease: The Kate B. Reynolds SELF Improvement Program

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- Whose Choice Is It? Understanding HIV Risk Among African American Women
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Policy, Research, and Programmatic Perspectives in Chronic Disease

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Utilizing Research to Create Environmental and Policy Change in Diverse Communities

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- Cost-Effectiveness of Treating Metabolic Syndrome Among the Uninsured
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- Mental Health and Mental Illness: Risk Factors for and Consequences of Physical Health and Physical Illness
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Using Social Marketing Techniques to Promote Healthy Living

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poster session abstracts

Ambulatory Care Visits for Obesity, United States, 2001 (P-01)

Authors: L.F. McCaig

Objective: To describe obesity-related visits to physician offices and hospital outpatient departments.

Setting: Data from the 2001 National Ambulatory Medical Care Survey (NAMCS) and National Hospital Ambulatory Medical Care Survey (NHAMCS) for persons aged 6–79 years were examined.

Method: NAMCS and NHAMCS are annual probability surveys of physician office and hospital outpatient department (OPD) visits, respectively, that are weighted to produce national estimates. This analysis was based on a subset of NAMCS and NHAMCS cases. Obesity-related visits (N = 1,540) were compared with all other visits (N = 21,370). Patient characteristics, diagnoses, diagnostic/screening tests, and counseling services were examined. Data were analyzed using SUDAAN.

Result: In 2001, 60.6 million obesity-related visits were made to physician offices and hospital OPDs in the United States (6.3% of all visits). Nearly half were made by persons aged 45–64 years. Obesity-related visits were more likely to be associated with a diagnosis of diabetes, hypertension, ischemic heart disease, arthritis, and depression than all other visits. Three or more diagnostic/screening tests were ordered at 32% of obesity-related visits compared with 20% of all other visits. Nutrition, exercise, and weight reduction counseling were provided at only about one-quarter of obesity-related visits.

Conclusion: Obesity-related ambulatory care visits were associated with middle age and resource-intensive chronic conditions. The consequences of obesity are serious both for the individual and society, which must bear the associated health care costs.

Applications of Geographic Information Systems (GIS) Techniques in Community Food Assessment (P-02)

Authors: D. Varadarajulu; A.S. Hosler; A.E. Ronsani

Objective: To use geographic information systems (GIS) techniques to geocode food stores identified through the World Wide Web and other resources. Also to locate food stores using geotracking and the global positioning system (GPS) to guide an assessment of diabetes-friendly foods available in food stores in selected underserved communities.

Setting: The assessment involved food stores located in three communities that were selected on the basis of the characteristics of the counties they are located in and the characteristics of community residents. Food stores that met the selection criteria were included in the list of stores to be geocoded for the community food assessment.

Method: Food stores were geocoded in two ways. The first was automated and interactive, using mapping and geocoding software. The second was manual, using aerial photography files, 2001 real property data, topography maps, 2000 zip code and town boundaries, and 2000 Topologically Integrated Geographic Encoding Referencing (TIGER) street maps.

Result: Automated and manual geocoding accounted for 67% and 33% of overall geocoding, respectively. Maps (3 feet by 3 feet) of the study area with geocoded points on street-level definition were printed to plan site visits. GPS and geotracking were used to locate and navigate to these food stores to conduct the assessment.

Conclusion: The use of advanced GIS techniques helped researchers plan their study, as well as navigate, locate, and assess food stores. Exploring GIS applications will help researchers select the best methods for epidemiological studies.

Arthritis and Co-Existing Chronic Medical Conditions (P-03)

Authors: R. Tanner; R. Bullough; L. Larsen; M. Friedrichs

Objective: To compare the prevalence of nine chronic conditions among Utah adults with arthritis with the prevalence among those without arthritis.

Setting: In 2001, approximately 471,000 Utah adults had arthritis or chronic joint symptoms (CJS). More Utah women than men reported arthritis or CJS (35% versus 29%). Little was known about the prevalence of coexisting conditions among those with arthritis.

Method: The 2001 Behavioral Risk Factor Surveillance System (BRFSS) survey was used to identify the proportion of persons with arthritis who also had one or more of nine other chronic conditions (angina/coronary heart disease, asthma, cardiovascular diseases, diabetes, heart attack, high blood cholesterol, hypertension, and stroke). Results were weighted to the Utah population with respect to age, sex, and residence, and data were adjusted to eliminate bias for age, sex, body mass index, and smoking.

Result: The prevalence of all nine conditions was higher in the sample population with arthritis, and the prevalence of asthma, high blood cholesterol, and hypertension was significantly higher. The higher prevalence of hypertension among adults with arthritis (31% versus 18%, odds ratio = 2) was particularly impressive.

Conclusion: These results suggest a need for dialogue among medical and public health professionals concerning arthritis and coexisting conditions and the identification of potential quality improvement opportunities.

Arthritis Prevalence and Cost in a Large Managed Care Organization, New Mexico (P-04)

Authors: S.L. Baum; L.A. Wilson; L.S. Nelson; M. Adams-Cameron; M.J. Gunter

Objective: To determine prevalence of arthritis and costs for its treatment among members of a large managed care organization (MCO).

Setting: Arthritis is the leading cause of disability among adults. Effective, evidence-based arthritis education interventions are estimated to reach less than 1% of the population with arthritis. MCOs might provide more of these interventions if data indicated that they were needed and that people would use them.

Method: Arthritis service use data were analyzed for health plan members continuously enrolled from January 1, 2000, through June 30, 2001. Arthritis prevalence was determined using Health Plan Employer Data and Information Set (HEDIS) criteria and reported by health plan type, sex, age group, and race/ethnicity. Costs were determined for office visits, hospital admissions, outpatient surgery, pharmacy, and other related therapies.

Result: Twenty percent of health plan members who used arthritis services had the disease. Total costs for arthritis treatment were over \$32 million for the 22,890 members with a primary diagnosis of arthritis. Thirty-six percent of costs were for hospital admissions, 22% for pharmacy, and 16% for outpatient surgery.

Conclusion: Even a small decrease in use of arthritis services, especially surgery, could yield substantial cost savings for MCOs. Thus, MCOs are encouraged to increase the use of effective, evidence-based arthritis education interventions as an integral part of arthritis management.

Awareness and Use of Arthritis Community Resources in Missouri (P-05)

Authors: D.L. Braby; M.J. Rippe; W.D. Bronson

Purpose of the Program: To develop an awareness program linking rheumatology offices with patient education programs. The goal is to improve patient awareness, increase use of available community resources, and improve communication between state-supported Regional Arthritis Centers (RACs) and rheumatologists.

Setting: The Arthritis Community Services/ Northwest Missouri Regional Arthritis Center (NWRAC) and the Arthritis and Osteoporosis Treatment Center developed a documentation tool for patient education objectives.

Interventions: A pilot project validated the efficacy of this approach. Using the existing RACs decreased direct costs of implementing the program. Comparative/benchmark data were gathered. The PASTE (Problem, Analysis, Solution, Transition, Evaluation) methodology identified gaps. Data were gathered from chart audits, health department quarterly reports, patient surveys, and evaluations. Analysis indicated that patients received inconsistent information from physician offices about community services and educational opportunities. A standardized education form was developed to ensure that the same information was given to each patient by rheumatology office nurses.

Outcomes: Audits verified usage of the form. The project has successfully increased patient awareness and use of community resources and improved communication (as indicated by increased participation from 2001 through 2003). Use of community services has increased by 35%, to 100%.

Conclusions: This project can be implemented in other rheumatology offices and will result in improved patient awareness, increased use of available community resources, and improved communication between RACs and rheumatologists.

Blood Mercury Levels in Frequent Consumers of Locally Caught Fish in Louisiana (P-06)

Authors: W.R. Hartley; A.R. Machen

Objective: To examine differences in blood mercury concentrations in Louisiana families, particularly subsistence fishers, by frequency of consumption.

Setting: Families in 11 southern Louisiana parishes (counties) were assessed for exposure to mercury from consumption of local fish.

Method: Information was distributed through public service announcements on television, in newspapers, and on the radio to recruit volunteers. Persons who met the minimum consumption criteria of one meal of fish per week were weighed, administered a dietary/demographic questionnaire, and asked to give a venous blood sample. Participants were asked to identify each fish species consumed over the past year, as well as whether the fish was caught locally and where it was caught. Associations were explored between blood mercury level and each of the consumption variables. Each independent variable (age, sex, income, race, species) was analyzed to identify statistically significant associations with blood mercury level.

Result: The range of all detectable blood mercury concentrations was 0.3-48.7 ppb (n = 131 families). Although no associations were found between species consumed and blood mercury level, a statistically significant association did exist between blood mercury level and frequency of consumption of locally caught fish.

Conclusion: Persons who consumed locally caught fish more than once a week had higher blood mercury levels than those who consumed fish less often.

Bringing Groceries into Underserved Neighborhoods: A Policy Case Study (P-07)

Authors: D.M. Pluto; T.L. Pearch

Purpose of the Program: To describe the factors that influence the location of grocery stores.

Setting: Evidence exists that persons in neighborhoods with few grocery stores eat fewer servings of healthy foods. Before public health practitioners can convince grocery store owners to move to these neighborhoods, they must understand the factors that influence grocery store location.

Interventions: Key informant interviews, literature searches, and policy searches were conducted to identify factors that influence grocery store placement. Interviews were conducted with persons in local government, grocery store chains, and commercial development companies to solicit their perspectives on how store locations are chosen. Local news stories were used for additional background on specific store decisions.

Outcomes: A case study was created as the framework to describe how grocery stores are located in one community in the southeastern United States. This case study was conducted in the context of national trends, with attention to applicability in other communities.

Conclusions: Because of the small profit margin in the grocery business, store locations are more a factor of private decision-making than public policy. Community development efforts designed to increase the population and buying power of underserved areas can make these areas more attractive to grocery stores.

Can Speaking with a Nurse by Telephone Affect a Caller's Workplace Productivity or Emotional Well-Being? (P-08)

Author: M. Parker

Purpose of the Program: To describe the results of a study into whether speaking to a nurse by telephone can affect a caller's workplace absenteeism, productivity, and emotional well-being.

Setting: Optum provides health information through six national call centers, an audiotape library, a Web site, books/publications, and local community therapists.

Interventions: This study examines basic workplace, cognitive, and emotional experiences within various care paths (e.g., diversions, preparations, preventions) using data from completed follow-up surveys or encounters conducted January 1, 2002, through March 31, 2003.

Outcomes: Respondents reported improved productivity, less time away from work, decreased stress, increased confidence dealing with health care professionals, improved activities of daily living, and improved health care decision-making.

Conclusions: The data clearly show that speaking with a nurse by telephone can have a positive effect on a caller's workplace productivity and emotional well-being.

Caregiver-Reported Control of Asthma and Undertreatment Among Children in Buffalo, New York (P-09)

Authors: J.S. Lwebuga-Mukasa; P.M. Wydro

Objective: To identify factors that may contribute to the high morbidity of asthma in Buffalo, New York, among children aged 5–14 years.

Setting: Staff members of the Center for Asthma and Environmental Exposure at Buffalo General Hospital, New York, conducted telephone interviews.

Method: Telephone surveys were conducted among caregivers for 201 children. The sample was selected from a cross-sectional study of 600 children from the Buffalo Public Schools who were identified as having asthma through a questionnaire.

Result: According to respondents, 71.6% (144/201) of children were using quick-relief medications for asthma, 16.9% (36/201) were using controller medications, and 10.4% (21/201) were using no medications. Of the children receiving treatment, 38.2% (68/178) had poorly controlled asthma according to the National Asthma Education Prevention Program Guidelines. Of those classified as having poorly controlled asthma, 72.9% (51/70) were using quick relief medications only, and a parent reported that the child's asthma was completely controlled or well-controlled, despite frequent respiratory symptoms.

Conclusion: Failure to recognize poorly controlled asthma appears to contribute to the undertreatment of asthma and high morbidity rate in this population. Targeting this group may result in improved control of asthma.

Characteristics of Overweight and Obese Adults with Arthritis in the District of Columbia, 2001 (P-10)

Authors: L.H. Jones; G. Kidane; G.R. Lum; P. Thomas; S.C. Washington; J.O. Davies-Cole

Objective: To examine the demographic and socioeconomic characteristics of overweight and obese adults with arthritis in the District of Columbia (DC).

Setting: The health status of overweight and obese adults has a major impact on the prevalence of chronic disease (e.g., diabetes, hypertension). Identifying populations at risk for adverse health outcomes (e.g. arthritis) has implications for health promotion program planning.

Method: Data from the DC Behavioral Risk Factor Surveillance System (BRFSS) were analyzed by age, sex, race, marital status, employment status, income level, and city ward using SUDAAN software. In 2001, an arthritis module was added to the survey. Weight categories were based on CDC body mass index classifications.

Result: Obese persons were twice as likely to have arthritis as persons of normal weight, and overweight persons were 1.5 times more likely to have arthritis. The prevalence of arthritis increased with age across all weight categories. Nearly 1 in 5 obese adults aged 25–34 years had arthritis. The prevalence of arthritis was higher in obese women (47.6%) versus obese men (33.2%). For both men and women, the prevalence of arthritis almost doubled when obese and normal weight persons were compared. The rate of arthritis in obese persons compared with persons of normal weight also was higher among those who were divorced (44.7%).

Conclusion: The prevalence of arthritis was higher among overweight and obese adults compared with persons of normal weight. Health promotion initiatives designed to help young adults control their body weight could help prevent early onset of arthritis.

Collective Efficacy and Body Mass Index: Neighborhood-Level Associations (P-11)

Authors: D.A. Cohen; B. Finch; A. Bower; N. Sastry; M. Schuster

Objective: To study the association between collective efficacy, a measure of community members' willingness to help out for the common good, and body mass index (BMI) among adolescents.

Setting: Collective efficacy has been associated with crime and a variety of health outcomes, including cardiovascular mortality. Collective efficacy represents a variety of social controls that are believed to benefit community well-being.

Method: Using data from the Los Angeles Family and Neighborhood Survey (LAFANS), collective efficacy was characterized for 65 geographically distinct neighborhoods. Within these neighborhoods, 1,008 families were sampled, and height and weight were reported for children aged 12–17 ($n = 810$). We conducted hierarchical linear regression analyses controlling for child characteristics, including age, race, and participation in extracurricular activities. We also controlled for primary care giver characteristics, including marital status, education, employment status, and health insurance status. We assessed the association of these characteristics with reported BMI among the children, along with community-level collective efficacy and overall neighborhood disadvantage.

Result: Overall, differences between neighborhoods appeared to explain about 8% of the total variance in BMI. A one-unit increase in collective efficacy was associated with a 1.9 decrease in BMI among children ($P < .05$).

Conclusion: This study is the first to indicate that collective efficacy may point to a social domain that is relevant for health behaviors related to obesity. The precise mechanisms through which collective efficacy could influence diet and physical activity, the two major determinants of BMI, needs to be elucidated.

Correlates of Physical Activity for Adults with No, Moderate, or Severe Disability (P-12)

Author: S. Boslaugh

Objective: To examine correlates of physical activity among adults with differing levels of disability.

Setting: Physical activity is one of the ten leading health indicators in *Healthy People 2010*. Reducing the disparity in activity levels between persons with and without disability is a specific goal. However, little is known about which factors influence physical activity among persons with disability.

Method: Data came from the 2001 Behavioral Risk Factor Surveillance System, a national random-digit-dialed telephone survey. Respondents were classified as having no, moderate, or severe disability and as meeting or not meeting CDC's recommendations for moderate physical activity. Analyses were conducted separately for each level of disability. Unadjusted and adjusted odds ratios and a stepwise logistic regression were computed to find the correlates most strongly related to physical activity at each level of disability.

Result: Only 25.6% of adults with a severe disability met CDC's moderate activity guidelines, compared with 37.5% of those with a moderate disability and 43.9% of those with no disability. Correlates of physical activity differed among the three groups. Income and employment status were strong predictors, whereas general health, obesity, and age were less strong for persons with severe disability compared with the other two groups.

Conclusion: Degree of disability is negatively correlated with physical activity level. However, for persons with similar levels of disability, many other factors influence physical activity. These factors are similar for persons with mild or no disability, but differ for persons with severe disability.

Cost Analysis of a Smoking Cessation Counseling Intervention for Pregnant Women: A Comparison of Three Settings (P-13)

Authors: M.O. Alao; E.K. Adams

Objective: To estimate the costs of an evidence-based, smoking cessation intervention for pregnant women. This best practice intervention, called the 5A's, is based on the U.S. Public Health Service's *Clinical Practice Guideline: Treating Tobacco Use and Dependence*, and it is recommended by the American College of Obstetricians and Gynecologists.

Setting: Babies born to prenatal smokers are 1.5–3.5 times more likely to be low birth weight than babies born to nonsmoking mothers. Low-birth-weight babies are at risk for serious health problems throughout their lives. In 1996, health care costs at delivery for U.S. infants with problems caused by prenatal smoking totaled about \$366 million.

Method: Costs in three settings were compared: 1) a clinical trial conducted during Phase II of the Robert Wood Johnson Foundation-funded Smoke-Free Families Research Project; 2) a National Pregnant Smokers quit line, and 3) a rural managed care organization.

Data were collected on the labor and material resources used to implement the 5A's in each setting. Costs of these resources were compared with potential neonatal cost savings per pregnant woman using data from CDC's Maternal and Child Health Smoking Attributable Mortality, Morbidity and Economic Costs software.

Result: Preliminary estimates show that the cost of the 5A's is \$4–\$6 per patient per counseling session.

Conclusion: Neonatal cost savings per pregnant woman are significantly higher than the per-patient cost of the intervention in all settings.

Developing an Evaluation Framework: Insuring National Excellence for the Prevention Research Centers Program (P-14)

Authors: A. Cross; L.A. Anderson; R. Brownson; R. Goodman; R. Mack; D. McLinden; J. Scherer; R. Schwartz; D. Sundra; T. Sims; A. Warsofsky; C. White

Purpose of the Program: To describe a two-year planning process, called Developing an Evaluation Framework: Insuring National Excellence (Project DEFINE), which resulted in development of an evaluation plan to assess and monitor the impact of the Prevention Research Centers (PRC) program.

Setting: The PRC program's mission is to strengthen science for public health action. Conducting evaluations in a large network of established centers is complex. This presentation provides information about the benefits of using a participatory approach in the planning process. Perspectives gained from partners also are described at each step.

Interventions: A participatory process based on CDC's Framework for Program Evaluation in Public Health was used to develop a conceptual framework, indicators, and evaluation goals. The planning process involved concept mapping, face-to-face meetings, and a structured feedback tool. Concept mapping is a mixed methods approach that integrates qualitative group processes (brainstorming, sorting ideas) with quantitative processes (multivariate statistical analyses) to help a group describe its ideas on any topic and to represent these ideas visually through various maps.

Outcomes: Concepts derived from concept mapping were used to create the PRC national conceptual framework. The face-to-face meetings and the feedback tool were used to refine the framework and evaluation goals and to select indicators.

Conclusions: The participatory process allowed a diverse group of partners to share perspectives and expectations about the PRC program. Furthermore, the results of this process served to organize the PRC program announcement for the next five-year cycle.

Developing and Using an Independent Facilitator Model to Implement CDC's School Health Index (SHI) in Michigan Schools (P-15)

Authors: L. Grost; E. Haller; B. Miner; N. Drzal

Purpose of the Program: To produce a best practice method of facilitating the use of the School Health Index (SHI) in Michigan.

Setting: A three-year collaboration between Michigan Departments of Education and Community Health produced training for a best practice model for independent facilitation of the SHI, a self-assessment and planning tool. A state facilitation team coordinated production and dissemination of the training.

Interventions: During the 2000–2001 school year, six public schools in Michigan implemented the SHI. Three schools used an independent facilitator and three schools used a on-site staff member. The schools with an independent facilitator fully completed the SHI, produced more changes, and have continued their SHI teams. Schools that used an on-site staff member to facilitate the SHI have had difficulty completing it. They also have produced minimal changes in their schools, and their teams have disbanded.

Outcomes: Two state agencies developed a program to train independent facilitators to implement the SHI across the state. To date, over 100 independent facilitators have been trained through a day-long workshop. With funding from minigrants, 19 schools have implemented the SHI using an independent facilitator.

Conclusions: Using independent facilitators to implement the SHI is an effective strategy, increasing the likelihood of SHI completion, team cohesiveness, and team sustainability.

Developing Nevada's Oral Health Surveillance System: Lessons Learned (P-16)

Authors: T. Salamone; C. Forsch; L. Cofano; L. Nickles; D.R. Murphy

Purpose of the Program: To review the establishment of Nevada's oral health surveillance system, addressing the advantages and disadvantages of specific practices and activities.

Setting: The Nevada State Oral Health Program, in collaboration with community organizations, an advisory committee, and the Association of State and Territorial Dental Directors, determined a set of data to be collected and used for monitoring oral health.

Interventions: Determining a set of indicators crucial to monitoring oral health. Identifying existing data sources and evaluating their quality. Promoting collaboration between organizations to standardize information. Addressing methods for the state health division to collect its own reliable and timely data. Disseminating data through reports to appropriate parties.

Outcomes: Data quality and standardization among partnering organizations were improved. A data collection plan for the state was developed. The state health division conducted its first open-mouth screening of third-grade children for data collection.

Conclusions: Some data sources were determined to be inadequate for monitoring purposes. The remaining sources contributed data to the Oral Health Program's first annual report, which was distributed to advisory committee members, partner organizations, and the general public through the Internet. The health division's statewide oral screening of third-graders was completed and evaluated. Subsequent screenings for other age groups were planned to provide data for periodic monitoring.

Differences in Prevalence, Related Complications, and Health Services Among Diabetic Patients in Puerto Rico (P-17)

Author: Z. Kianes-Perez

Objective: To examine differences in prevalence, related complications, and health services between diabetic patients with government-funded and private health insurance in Puerto Rico.

Setting: Eliminating health disparities is a goal of both *Healthy People 2010* and Health Reform in Puerto Rico (government-funded health insurance for indigent people). We used data from the Puerto Rico Behavioral Risk Factor Surveillance System (PR-BRFSS) and private health insurance companies to measure progress toward this goal, focusing on the diabetic population.

Method: Descriptive and bivariate analyses were performed using data from the PR-BRFSS and three different health insurance companies. The descriptive analysis included percentage distribution and mean calculation for all variables, as well as for diabetes prevalence by age, sex, and type of insurance coverage. The bivariate analysis calculated odds ratios between type of coverage and other variables.

Result: In 2000, diabetes prevalence was higher for patients with government-funded insurance (5.77%) than for those with private insurance (3.69%). Diabetic patients with government-funded insurance also had a higher prevalence of renal failure and lower extremity amputations and a lower prevalence of medical visits and glucose test.

Conclusion: A better distribution of resources is needed to ensure better access to health services.

Disparities in Cancer Screening Rates and Related Behaviors in Michigan Adults (P-18)

Authors: M.D. Yassine; A.L. Wendt; D.Y. Wing

Objective: To obtain a comprehensive and representative assessment of cancer-related behaviors and screening practices among Michigan adults.

Setting: Michigan Cancer Consortium (MCC) organizations established 10 priority objectives as part of their evidence-based, comprehensive cancer control initiative (MCCI). Baseline assessment and outcome evaluation is a critical component of the MCCI.

Method: A special cancer behavioral risk factor survey (SCBRFS) was conducted among 3,000 adults aged 50 or older, including the first systematic oversamples of African Americans, Hispanics, American Indians, and Arab Americans. Survey tools and telephone interviewers were bilingual and culturally competent.

Result: In-depth analyses of the Michigan SCBRFS are in progress. Preliminary results indicate disparities among survey groups, including sex and age groups. Major differences were found in regular screening for breast, cervical, and colorectal cancers. Discrepancies exist in patterns of tobacco use and cessation and in awareness and use of hospice services.

Conclusion: Understanding patterns and determinants of screening and related behaviors in ethnic and racial populations that are typically hard to reach helps MCC planners and partners target interventions and increase their effectiveness.

Economic Burden of Overweight and Obesity—Texas, 2001 (P-19)

Authors: M.E. McCusker; C. Alo; P. Huang

Objective: To estimate overweight- and obesity-associated costs among Texas adults during 2001.

Setting: The Texas population is more obese than the U.S. population (25% versus 21%), necessitating cost estimates that use state data.

Method: Direct and indirect costs were estimated with cost-of-illness methods. Overweight (body mass index [BMI] 25–29.9 kg/m²) and obesity (BMI 30 kg/m² or more) prevalences were determined by using self-reported height and weight data from the 2001 Behavioral Risk Factor Survey. Diseases considered were cardiovascular disease, diabetes, osteoarthritis, asthma, gallbladder disease, and several cancers. Population-attributable fractions (PAFs) of disease morbidity related to overweight and obesity were used to estimate the number of hospital discharges and personal health care expenditures. Data on state and national personal health care expenditures were obtained from the Centers for Medicare and Medicaid Services. BMI-correlated all-cause mortality PAFs were used to estimate the number of deaths and the cost of lost productivity.

Result: During 2001, 170,393 hospital discharges in Texas were of patients treated for diseases attributable to overweight or obesity; such discharges accounted for 8.7% of all hospital discharges among Texas adults. Deaths attributable to overweight or obesity totaled 10,417. Estimated overweight and obesity costs totaled \$9.3 billion: \$6 billion in direct health care costs and \$3.3 billion in indirect, mortality-related, lost productivity costs.

Conclusion: The cost of treatment for illnesses associated with overweight or obesity accounted for 8.2% of adult personal health care expenditures in Texas during 2001. These state cost estimates provide specific information to help policy makers develop programs focused on their state's unique needs.

Effect of an Attended School Yard on Physical Activity of Inner-City Schoolchildren (P-20)

Authors: T.A. Farley; R.A. Meriwether; L.T. Watkins; C.C. Johnson; L.S. Webber

Objective: To evaluate the effect of providing attendants in a school yard during nonschool hours on the number of children outdoors and physically active.

Setting: Two matched elementary schools serving predominantly African-American schoolchildren and surrounding neighborhoods in inner-city New Orleans.

Method: In the intervention school yard, teachers were paid overtime to provide safety (but not organized activities) on weekdays after school and on weekends. Attendance records were kept daily. Systematic momentary time-sampled observations were made over nine days per quarter of the number and activity levels of children in the intervention school yard as well as outdoors in the neighborhoods surrounding the intervention and control schools.

Result: Before the intervention, a mean of 65 children in the intervention neighborhood and 67 children in the control neighborhood were observed outdoors and physically active. In the second week after the intervention began in April 2003, a mean of 120 children attended the school yard on weekdays, 55% of whom were observed being physically active. Weekday school yard attendance decreased during summer months to fewer than 20 children but increased to 65 when school reopened in late August. After the school yard opened, the number of children physically active in the neighborhoods remained similar in the intervention and control neighborhoods (e.g., mean 49 versus 45 in the summer).

Conclusion: Providing a play space that is perceived as safe in inner-city neighborhoods increases the number of children outdoors and physically active. This simple environmental intervention may help prevent obesity in high-risk children.

Effectiveness of a Community-Based Health Promotion and Chronic Disease Management Program for Older Adults (P-21)

Authors: J.P. LoGerfo; S. Snyder; E. Phelan; B. Williams

Objective: To examine if a community-based health promotion and chronic disease management program for seniors continues to be effective when disseminated to diverse sites in seven states.

Setting: The Health Enhancement Program (HEP) is a community-based program shown to improve health and reduce hospitalization of older adults in the Puget Sound Region. HEP uses a nurse/social work team to help clients develop and complete health action plans that emphasize self-management skills for behavior change and chronic disease management. HEP has been exported to six other states. Sites use a Web-based data system to record information about baseline risks, action plans, and structured follow-up assessments.

Method: Analysis of 12-month outcomes from standardized assessments reported through a Web-based system for 343 clients in 28 sites.

Result: HEP participants show statistically significant improvement in self-reported health, depression as measured by the Geriatric Depression Scale (GDS), exercise level as measured by the PACE scale, self-reported falls, and hospitalizations in the past year. The biggest changes involved issues specifically noted on the health action plans, but all of the above measures improved significantly. For example, GDS scores declined from 6.4 to 4.5 and PACE scores increased from 4.0 to 5.5 for persons with health action plans. GDS scores declined from 3.8 to 3.0 and PACE scores declined 5.0 to 5.7 for all others.

Conclusion: HEP is a robust program that can significantly affect multiple measures of health for seniors in diverse settings and locations.

Effectiveness of a Self-Efficacy Exercise Intervention for Minority Older Adults in Urban Settings (P-22)

Authors: B. Resnick; A. Vogel; P. Junlappeya; D. Luisi

Objective: To evaluate the impact of the Senior Exercise Self-Efficacy Project (SESEP) among minority older adults in urban settings.

Setting: Fourteen New York City Housing Authority (NYCHA) senior centers located in public housing.

Method: Senior centers were randomized to receive SESEP or nutrition education. SESEP was provided by the New York City Department of Health and Mental Hygiene (DOHMH) in collaboration with NYCHA and the University of Maryland School of Nursing. The intervention included a strong motivational component based on self-efficacy theory. SESEP was assessed for its impact on exercise self-efficacy, outcome expectations, and behavior; overall physical activity; functional performance measures; mood; and overall health. Analysis of variance was used to determine differences in outcomes between intervention and comparison groups.

Result: A total of 193 older adults were enrolled in the study, and 101 were available for follow-up. Mean age was 72.4 years, and most participants were female (88%), widowed (38.4%), African American (76%), and had high school educations (41%). The intervention group showed statistically significant increases in exercise self-efficacy, $F(1, 96) = 23.51, P < .05$; exercise outcome expectations, $F(1, 97) = 8.16, P < .05$; and overall physical activity, $F(1, 98) = 4.58, P < .05$. Although the difference was not statistically significant, the intervention group spent more time exercising on average than the comparison group.

Conclusion: Evidence existed for the effectiveness of delivering SESEP in community settings and for the value of self-efficacy theory to motivate physical activity in this population.

Efficacy of a Pediatric Emergency Department Asthma Clinical Pathway (P-23)

Authors: F. Qureshi; J.C. Welch; N. Nakas; E. Vasser

Objective: To evaluate the efficacy of asthma clinical pathways in pediatric emergency departments (ED) in decreasing the length of the ED stay and reducing the rate of hospitalization.

Setting: Asthma is the most common chronic illness in children and a frequent cause of ED visits. Clinical pathways are evidenced-based protocols that attempt to optimize coordination of care, thereby improving outcomes and reducing costs.

Method: The clinical pathway was introduced in November 1995. A retrospective study evaluated it during a pilot (1996–1997) and follow-up phase (2002–2003) during peak asthma seasons (September–February). Control patients were drawn from patients seen before the pathway (1994–1995). Thirty-eight patients were randomly chosen from each phase and matched on age, race, sex, and asthma severity. Analyses were conducted using Wilcoxon Signed-Rank and McNemar's tests.

Result: Rates of hospitalization significantly decreased from control (37%) to pilot (3%) and follow-up phases (5%). Median lengths of stay in the ED and readmission rates to the hospital were not statistically different. Those treated during the follow-up phase had significantly less time between their second and third albuterol nebulizer treatment than controls. From the control phase to pilot and follow-up, rates of oral steroid prescriptions at discharge showed a clinically significant increase, and the proportion of patients receiving X-rays significantly decreased.

Conclusion: The ED asthma clinical pathway significantly reduced the rate of hospitalization and maintained this reduction over time.

Estimating the Economic Burden of Oral Disease in Colorado (P-24)

Authors: D. Brunson; J. O'Connell; T. Anselmo

Objective: To estimate the economic burden of oral disease in Colorado in order to provide state policy makers with the information they need to set priorities for oral health prevention programs.

Setting: The economic burden of oral disease in the United States far surpasses the amount spent on dental services because of costs associated with untreated disease, productivity losses, related adverse health effects, and reduced quality of life. Little information exists about these costs at the state level.

Method: The Colorado oral health model estimates the economic burden associated with preventable tooth decay, oral cancer, and cleft lip/palate and the state-specific cost effectiveness of prevention strategies, using CDC's national models and recommendations from the Panel of Cost Effectiveness in Health and Medicine.

Result: Based on data from Colorado's oral health surveillance system, 26.3% of third-graders have untreated decay and only 29% have sealants. Nearly 25% of residents do not have access to optimal levels of fluoride. With lifetime restoration costs for teeth estimated at \$400–\$600, community water fluoridation programs and school sealant programs are cost-effective even in small communities. The economic burden of oral cancer late diagnosis/mortality and oral clefts may be reduced through programs to prevent or diagnosis disease early and coordinate care.

Conclusion: Oral disease is a significant economic burden for Colorado. Investment in cost-effective oral health prevention results in significant health cost savings.

Evaluating Senate Bill 19 Implementation After Coordinated School Health Training in Texas (P-25)

Authors: D.M. Hoelscher; S.H. Kelder; C.S. Barroso; C. McCullum; P.W. Cribb; J.L. Ward; N. Murray

Purpose of the Program: To train Texas physical education (PE) specialists, child nutrition services (CNS) staff members, and classroom teachers to implement Senate Bill 19 using the Coordinated Approach to Child Health (CATCH).

Setting: Senate Bill 19 (Texas Education Code Section 38.013) mandates that school districts establish and implement 1) 30 minutes/day or 135 minutes/week physical education for grades K–6 and 2) a coordinated school health (CSH) program that incorporates health education, nutrition services, PE/physical activity, and parental involvement.

Interventions: In 2002–2003, school personnel in Texas received CATCH training through a model that included representatives from all school components and encouraged coordinated program planning.

Outcomes: Participants were mailed surveys after their training. Response rates were 57.7% for PE specialists, 40.3% for CNS personnel, and 38.1% for classroom teachers. Most school staff members (>55%) reported that efforts to implement daily PE were successful or very successful (>55%); however, efforts to implement CSH were most likely to be assessed as somewhat successful. PE specialists, teachers, and CNS staff thought that all 3 groups were important to implementation of CSH programs, but PE specialists were rated very important most often.

Conclusions: A CSH training model can encourage teamwork for implementing these programs, but successful efforts require additional support and follow-up. PE specialists are seen as key to implementing CSH programs.

Evaluation of Colonoscopy Capacity at Hospitals in New York City (P-26)

Authors: J. Leng; L. Thorpe; G. Feldman; P. Thomas

Objective: To evaluate current colonoscopy capacity in New York City hospitals.

Setting: Colorectal cancer is the second leading cause of cancer death (after lung) in New York City. In March 2003, the NYC Department of Health and Mental Hygiene recommended colonoscopy every 10 years as the preferred screening test for city residents. To screen all persons aged 50 years or older, we estimated that 200,000 colonoscopy examinations would be required per year.

Method: We surveyed nursing/administrative staff at all 66 adult, acute care hospitals with endoscopy suites, as well as affiliated clinics. Surveys requesting 2002 data were conducted during February–June 2003.

Result: Staff at 66 hospitals and two affiliated clinics responded. For 2002, a total of 126,046 colonoscopy examinations were reported. Of these, an estimated 53,574 (43%) were for screening. Using the reported maximum capacity for colonoscopy procedures, potential unused capacity was estimated at 69,116, and potential maximum screening capacity at 122,690. Reported barriers to performing more colonoscopy examinations included inadequate suite time and space (31%); not enough physicians, nurses, or technicians (28%); and not enough patients referred (24%).

Conclusion: Endoscopy suites at New York City hospitals performed far fewer screening colonoscopy examinations in 2002 (53,574) than the estimated need of 200,000. Although some clinics noted capacity-related barriers, many reported operating below maximum capacity. To increase screening rates, public and provider awareness should be improved, and hospitals/clinics should work to develop institutional measures to encourage routine screening colonoscopy.

Evaluation of Diabetes Collaborative Activities in Missouri: June 2000 through June 2003 (P-27)

Authors: J.A. Vradenburg; J Anderson; L Powell

Objective: To determine if the ongoing implementation of the National Diabetes Collaborative (NDC) improved diabetes-related care, as measured by sixteen performance indicators from six health centers in Missouri.

Setting: Health centers—primarily federally qualified centers—from St. Louis, Kansas City, St. Joseph, and southeast Missouri participated in this project.

Method: Each center created an electronic registry of patients with diabetes, which tracked diabetes-related services and risk factors (i.e., performance indicators). Baseline (6/00), Year One (7/00–6/01), Year Two (7/01–6/02), and Year Three (7/02–6/03) prevalences were compared. Chi-squares and placing 95% confidence intervals on the prevalence estimates and examining these for overlap determined significance. Key participant surveys of center personnel were conducted at the end of each year.

Result: The number of patients enrolled in diabetes registries increased from 1,107 to 4,361, or by 294%. From baseline, the participating health centers significantly improved 12 of 16 diabetes-related care measures, including increases in the prevalence of at least two A1c tests at least three months apart (15%), dilated eye exams (190%), foot exams (47%), flu vaccinations (76%), and setting of self-management goals (37%). Health center personnel attributed these improvements, in part, to the ongoing implementation of a team-oriented approach to care and monitoring system that prompts providers to perform diabetes-related services.

Conclusion: Participation in the NDC, patient monitoring, and the formation of teams of health care specialists have improved the level of diabetes-related care and services. Future efforts should focus on the maintenance of these improvements and extension of Collaborative activities to other health care sites.

Evaluation of the Health and Activity Limitation Index Compared With Other Standard Utility Measures (P-28)

Authors: A.J. Recktenwald; E.M. Andresen; K.N. Gillespie

Objective: To compare results of preference (i.e., utility-based) health-related quality of life (HRQOL) data from the Health and Activity Limitation Index (HALex) with those from the gold-standard Quality of Well Being (QWB) Scale. The utility HRQOL scale is 0 (representing death) to 1.0 (maximum health), and HRQOL results can be applied to economic decisions.

Setting: *Healthy People 2010* bases some overarching goals on HALex data. Ensuring that the public health community accepts and uses the HALex requires that its compatibility with other standard utility measures be examined.

Method: Telephone surveys using random-digit dialing in a midwest city included the HALex and QWB.

Result: A total of 200 adults completed interviews. Mean respondent age was 45; 70% were women, and 68% were white. HALex scores were positively skewed: 33% of subjects received two maximum scores out of 30 possible values. The mean utility score was 0.82. QWB scores were calculated by two methods (automatic maximum weights versus personal preference self-rating). Mean QWB scores for self versus automatic weighting were 0.71 versus 0.66 ($P < .01$). Correlation between the results of the QWB versions was strong ($r = .89$); correlations between the QWB and HALex results were moderate ($r = 0.46$ for the self versus $r = .48$ for mechanical QWB).

Conclusion: Preference-based utility measures for populations are relatively new. The use of standard HRQOL measures across a variety of diseases and chronic health states is invaluable to public health, especially for financial considerations. The HALex results in a skewed population distribution and appears to measure utilities somewhat differently than the QWB.

Feeding Infants in Child Care: Government Guidance that Counts (P-29)

Author: D.M. Blum-Kemelor

Purpose of the Program: To provide a Web-based publication and PowerPoint slide show to meet the expressed needs of state agencies administering the U.S. Department of Agriculture's (USDA's) Child Nutrition Programs and child care sponsors and providers who provide nutrition services to infants.

Setting: USDA's Food and Nutrition Service updated *Feeding Infants: A Guide for Use in the Child Nutrition Programs* using feedback from a review group of more than 50 representatives from state and federal agencies, child care sponsors, child care providers (from centers and home settings) from across the United States, and infant nutrition experts.

Interventions: The group was asked to review a draft manuscript and recommend ways to improve its accuracy, format, usefulness, and contents. The PowerPoint slide show was piloted at six state and national meetings and with federal regional staff.

Outcomes: The review process identified the information most useful and relevant to state agencies and local child care providers. The updated guidance materials include new sections on how to support breast-feeding mothers, prevent tooth decay, and make sure food preparation is sanitary. Information also is provided for parents. The slide show was designed so that presenters can easily revise it to meet specific audience needs.

Conclusions: The Web-based publication and PowerPoint slide show provide an opportunity for child care providers across the United States to receive training on nutrition concepts important for infant health.

Florida Youth Physical Activity and Nutrition Survey for Middle School Students (P-30)

Author: K.S. Ladd

Objective: To examine the relationship between perceived weight status and body mass index (BMI) weight category.

Setting: The survey was implemented in Florida public middle schools during the spring of 2003.

Method: Students completed a 92-item, self-administered questionnaire. Participants were randomized at the county, school, class period, and student level. Response frequency for each item was obtained and bivariate analyses were conducted using SUDAAN to test for significant associations between dependent and independent variables.

Result: One-third (n = 250) of youth defined as overweight by BMI percentile described their body weight as about right or underweight. Compared with youth who accurately described themselves as being overweight, youth in this category were more likely to have participated in three or more sports teams during the past year, suggesting that a large muscle mass may be contributing to the BMI scores. Students whose self-perception did not match their BMI category also were less likely to have been told by a doctor, nurse, or parent that they needed to lose weight; less likely to be trying to lose weight; and more likely to have participated in daily physical education classes. Additional results and relationships between youth perception of weight and risk behaviors will be discussed.

Conclusion: Multivariate analyses are being conducted to further investigate the relationship between BMI according to self-reported height and weight and youth perceptions of weight and to examine how this relationship is connected with risk behaviors.

Folic Acid: Awareness, Consumption, and Counseling (P-31)

Author: *A.K. Griffen*

Purpose of the Program: The Recurrence Prevention Campaign educates women at increased risk for spina bifida pregnancies (i.e., women who have a child with spina bifida, who have spina bifida themselves, or who have had a pregnancy affected by neural tube defects) and their health care providers about the importance of increasing folic acid consumption by prescription before future pregnancies.

Setting: The campaign works nationally with the Spina Bifida Association of America's 57 chapters and 175 clinics, community partners, and states with traditionally higher rates of spina bifida (Alabama, North Carolina, and Texas).

Interventions: Health education, media advocacy, and social marketing techniques are used to target local libraries, health departments, medical societies, and grocery stores. Media outreach is used in target states, and a folic acid counseling tutorial has been developed.

Outcomes: Process evaluation data show that campaign partners are mentioning folic acid to women about 60% more often, that more women (52%) feel that folic acid is effective in reducing their risk, and that 59% of women have received folic acid counseling from their providers. Media advocacy efforts have resulted in television, radio, and print announcements reaching more than 6 million persons.

Conclusions: Sustainable local awareness efforts are needed because most women at increased risk for pregnancies affected by neural tube defects are not aware of their need for prescription folic acid and are often not counseled by a health care professional.

Forming Partnerships to Implement a Statewide Guidelines Applied in Practice Project for Acute Myocardial Infarction (P-32)

Authors: *L.L. Blades; D. Gohdes; C.S. Oser; C.C. Fogle; T.S. Harwell; S. Hecker; M. Sanz; C. Montoye*

Purpose of the Program: To promote comprehensive prevention of recurrent cardiovascular events in patients who have been hospitalized for Acute Myocardial Infarction (AMI).

Setting: Nine hospitals in Montana provide interventional cardiology. The state's Cardiovascular Health (CVH) Program partnered with the Montana Chapter of the American College of Cardiology (ACC) to implement the ACC's Guidelines Applied in Practice (GAP) Program for AMI.

Interventions: In 2003, 8 of the 9 hospitals with interventional cardiology services began to define assessment, planning, and implementation phases of GAP using standard GAP indicators and tools. They also selected test indicators. In some cases, hospitals already had relevant elements in place. In other cases, they were able to modify GAP tools, including standing orders, patient information letters, and discharge forms.

Outcomes: The Montana chapter of the ACC was instrumental in identifying and developing physician champions at the hospitals. The state CVH program provided coordination and support for statewide GAP training and ongoing consultation with experienced GAP investigators. The state's Quality Improvement Organization provided technical and communications assistance.

Conclusions: State CVH programs can collaborate successfully with state chapters of the ACC to tailor national secondary prevention programs like GAP to the needs of states.

Health-Related Information on the Web—United States, 2002 (P-33)

Authors: A.I. Zlot; P. Bansil; N.L. Keenan; J.C. Gilliland

Objective: To characterize the population who use the Web for health information.

Setting: An estimated 73 million Americans used the World Wide Web to access health information in 2002. Although there is an abundance of research on the quality of health information on the Web, very few nationally representative studies compare populations who use the Internet for health-related information with those who do not.

Method: Data from the national 2002 linked HealthStyles and ConsumerStyles Surveys were used to generate estimates and adjusted odds ratios (OR).

Result: Between 22% and 37% of the population used the Internet to look for health information in 2002. The most frequented sources of health and nutrition information were doctors, family members, pharmacists, friends, newspapers/magazines, and various medical organizations. The Internet was used less frequently as a health information resource. After accounting for demographic and geographic factors, those who reported having arthritis, asthma, or high cholesterol were more likely to use the Web for health-related information than those who did not report these conditions. In addition, those who reported having multiple chronic conditions (arthritis, asthma, diabetes, high blood pressure, and cholesterol) were more likely to use the Web for health information. Those who reported having these five chronic conditions were almost twice as likely to use the Internet for health information than those who reported having no chronic diseases [Adjusted OR 1.97, 95% CI 1.39-2.81].

Conclusion: CDC and public health partners have a unique opportunity to use the Internet as a tool to complement and supplement the health information that the public receives from health care professionals.

Healthy People 2010 Objectives for Overweight and Physical Activity Among People with Arthritis (P-34)

Authors: D. Ryberg; J. Hootman; C. Helmick; H. Kohl

Objective: To examine how well selected *Healthy People 2010* national objectives are being met among persons with and without arthritis and to identify high-risk subgroups.

Setting: Achieving HP 2010 objectives that address the related epidemics of overweight and physical inactivity is important. However, this goal may be especially difficult for people with arthritis, even though studies have shown that this group can benefit from such interventions.

Method: The 2001 Behavioral Risk Factor Surveillance System collected data on physical activity, nutrition, and arthritis in all 50 states. Respondents were classified as meeting or not meeting HP 2010 objectives for healthy weight, overweight, physical inactivity, moderate physical activity, and vigorous physical activity. SUDAAN was used to assess prevalence of meeting objectives by demographic characteristics and arthritis status.

Result: Persons with arthritis were consistently further from meeting selected HP 2010 objectives than persons without arthritis: healthy weight, 31% versus 42% (target = 60%); obesity, 27% versus 17% (target = 15%); inactivity, 33% versus 22% (target = 20%); moderate activity, 37% versus 45% (target = 30%); and vigorous activity, 17% versus 27% (target = 30%). High-risk subgroups included persons unable to work and those with low education, low income, and poor general health.

Conclusion: Persons with arthritis are further from achieving HP 2010 objectives than persons without arthritis. The population prevalence of arthritis is high and achieving national objectives may require special interventions for this population.

Home to School: Why Don't More Children Walk to School? (P-35)

Authors: C.E. Ludwig Bell; K.A. Jupka; M.W. Kreuter

Objective: To examine individual perceptions and environmental factors and how they affect walking as a mode of transportation to school.

Setting: Childhood obesity is a growing health concern. Walk-to-school programs initiated by CDC and other organizations increase opportunities for physical activity.

Method: We asked administrators at selected elementary schools in urban, suburban, midsized, and rural communities to participate in an interview designed to identify benefits and barriers of walking as a primary mode of transportation. An environmental observation of neighborhoods adjacent to the schools was conducted to assess factors contributing or acting as deterrents to walking. Focus groups with parents and children examined beliefs about benefits of and barriers to walking.

Result: The percentage of children walking to school was small, ranging from 12% in midsized communities to 39% in rural communities. Although all groups recognized the health benefits of walking, personal safety barriers such as childhood abductions, bullying, traffic congestion, and distance were cited. Environmental observations indicated that urban areas have sidewalks on most blocks (89%), more controlled intersections, and marked crosswalks, whereas rural communities had fewer sidewalks (60%), less controlled intersections, and fewer marked crosswalks.

Conclusion: Observational data suggest a lack of predictors for how many children walk to school. Parents, administrators, and children recognize the benefits of walking to school, but fears associated with barriers outweigh any benefits and negatively influence the walking behaviors of students.

Impact Evaluation of Kidnetic.com, A Childhood Overweight Prevention Web Site (P-36)

Authors: R.B. Elder; S.T. Borra; E.P. Davenport; A. Esser

Objective: To examine the impact of a childhood overweight prevention Web site (Kidnetic.com) on attitudes about physical activity and nutrition among children and parents.

Setting: Following 2½ years of consumer research, the ACTIVATE partnership developed an innovative, interactive, and educational Web site that delivers healthy eating and physical activity messages to children aged 9–12 years and their families in ways that are engaging, relevant, and meaningful to help prevent childhood overweight. Kidnetic.com was launched in June 2002.

Method: The impact evaluation of Kidnetic.com examined the effectiveness of exposure to the Web site on child and parent attitudes about physical activity and nutrition. The evaluation was a pretest/posttest, intervention and control group design. Subjects received pretests and posttests by e-mail and were exposed to Kidnetic.com over a 2-week period before completing the posttest. The intervention group consisted of 400 matched pairs of children and parents, whereas the control group consisted of 200 matched pairs.

Result: Final results of the impact evaluation were expected in November 2003. Ongoing process evaluation shows more than 1 million visitors to the Web site since June 2002. Kidnetic.com is effectively reaching children and parents. Preliminary findings indicate a strong interest in physical activity and nutrition by children aged 9–12 and their parents.

Conclusion: Healthy lifestyle information can be successfully delivered to children and families through a Web site designed around their needs and interests.

Implementing Proactive Policies for Community-Wide Tobacco Cessation Referrals (P-37)

Authors: D.K. Young; S.A. Jennings

Purpose of the Program: To establish a proactive referral network across health and human service systems in order to increase use of tobacco cessation interventions by high-risk populations.

Setting: Health care and human service agencies in Jefferson County, New York, established a referral network to provide follow-up services for identified tobacco users. Targeted populations included persons of low socioeconomic status, pregnant and nursing mothers, persons suffering from mental illness or other chemical dependency, and those seeking health care services.

Interventions: Agencies serving high-risk populations were identified. Systematic screening processes were established. Interested candidates signed releases allowing cessation specialists to contact them. Each contact consisted of telephone counseling, a population-specific kit on quitting, and referral to an intensive intervention (e.g., group or one-on-one interventions). Persons who chose more intensive intervention were offered child care, transportation to services, and nicotine replacement therapy.

Outcomes: Twenty-four agencies and providers, including the Department of Social Services, implemented system-based referral policies. During November 2002–September 2003, 814 smokers requested referral. Of those, 381 requested intensive interventions, with 70 choosing one-on-one counseling and 311 choosing a group intervention. This initiative resulted in a 600% increase in use of available services.

Conclusions: System-based proactive referral is an effective way to increase use of tobacco cessation services across populations.

Improving Health Outcomes Through Self-Management: A Chronic Disease Self-Management Program (P-38)

Authors: V. Nodhturft; M.C. Phillips

Purpose of the Program: This presentation will discuss patient-centered outcomes achieved through a new community-based Chronic Disease Self-Management Program (CDSMP) in the Veterans Health Administration (VHA). The VHA named this program one of ten (out of 250 submissions) Best Practice Models.

Setting: A prospective, randomized controlled clinical trial of 250 male and female veterans with a physician-confirmed diagnosis of diabetes.

Interventions: The program lasted 7 weeks and was taught by pairs of trained leaders at community-based sites. Ten to 15 persons with chronic disease attended each program. Sessions were highly interactive, emphasizing efficacy-enhancing strategies such as skill mastery (weekly action plans for specific behaviors), feedback, modeling (by leaders with chronic disease), and problem-solving. Sessions included guided mastery, acquisition of skills, self-confidence through modeling, reciprocal support reinterpretation of symptoms, and social persuasion.

Outcomes: Participants showed positive trends in health behaviors. Statistical increases were reported in medical outcomes, and cost savings were reported in health care use.

Conclusions: Self-efficacy strategies used in this self-management program appeared to have a major impact on positive outcomes for the subjects. Improved health behaviors and changes in health care use can affect cost savings.

Improving Quality of Care for Hypertensive Patients: Cardiovascular Surveillance Through an Emergency Department Hypertension Registry (P-39)

Authors: M.J. Glover; D. Cline; C. Ayala; G.A. Mensah; A. Lekiachvili

Objective: To identify inadequacies in the quality of care of hypertensive patients through a hypertension registry in an emergency department (ED) setting. The presence of and adherence to blood pressure (BP) measurement protocols was evaluated.

Setting: A university hospital with 65,000 annual visits per year; 48% of patients are from ethnic minority populations.

Method: Quality assurance was estimated by data element checks for patients presenting in the ED as hypertensive and lacking repeat BP measurements or follow-up.

Result: Of 3,923 patients screened, 37.4% had BPs over 140/90 mm Hg. In a subanalysis of 875 patients with first/second BPs over 140, 30% did not receive repeat BP readings before discharge (8% of stage 3, 21% of stage 2, and 71% of stage 1 hypertension). Protocol violations led to an update in ED policies and discussions with ED care providers to increase adherence to hypertension protocols.

Conclusion: This registry can be a model for a statewide surveillance system and a catalyst for establishing ED guidelines for appropriate treatment and follow-up of hypertension. Such efforts would lead to a long-term reduction in high blood pressure and cardiovascular complications.

Index Tool for Developing and Reviewing State Health Plans (P-40)

Authors: S.R. Lavinghouze; K. Heiden; T. Brown; J. Horne

Purpose of the Program: The National Oral Health Call to Action emphasizes the importance of creating state action plans to promote integration, coordination, and accountability in meeting national and state objectives espoused in *Healthy People 2010* and the 2000 *Oral Health in America: A Report of the Surgeon General*.

Setting: This session will discuss the methodology used by CDC to create an inventory of state oral health plans and to assess progress towards meeting state and national goals through component analysis. CDC's Division of Oral Health (DOH), in collaboration with state dental directors, identified states with oral health plans and posted them on the DOH Web site to promote sharing of ideas.

Interventions: Multiple methods—including a literature review, a plan component matrix, an assessment against published state and national objectives, and collaboration with funded states and national stakeholders—were used to develop an extensive review index. The review index combined the essential elements of the most influential documents in public oral health as well as leading indicators for successful collaborations and effective state health plans.

Outcomes: This index was used to create a baseline for measuring progress in public oral health in meeting national and state level objectives. The index also is an effective tool for states currently developing plans.

Conclusions: Recommendations were made to promote a more comprehensive scope for state plans and to suggest effective strategies for developing, disseminating, and implementing plans that promote integration, coordination, and accountability.

Keep Trying: Multiple Phone Attempts are Necessary for Young Rural Parents in Community-Based Studies (P-41)

Authors: K.S. Hessler; M.B. Elliott; M.S. Nanney; D. Haire-Joshu

Objective: To compare characteristics of easy-to-reach (<3 telephone contacts) versus hard-to-reach (>4 contacts) study participants.

Setting: Mothers (n = 353; mean age = 29+7) of preschool-aged children (mean age = 3+1) from rural communities participating in the High 5 for Kids program, a community-based dietary study delivered by educators of the Parents As Teachers program.

Method: Participants completed a 121-item telephone interview assessing nutrition knowledge, fruit and vegetable intake, access to and availability of fruits and vegetables at home, and physical activity. The median split of the total number of telephone contacts (range 1-19; median = 3) needed to complete the interview at baseline was used to determine easy-to-reach versus hard-to-reach parents.

Result: Compared with those who were easy-to-reach, hard-to-reach parents were younger (28 versus 30 years; $P = .006$). After controlling for age, easy-to-reach parents consumed more vegetables than hard-to-reach parents (2.36 versus 2.13 servings; $P = .048$). No differences were found for fruit intake (2.11 versus 1.91 servings; $P = .269$). No significant differences existed between groups regarding nutrition knowledge, access to and availability of fruits and vegetables, or physical activity.

Conclusion: Young rural parents who were hard-to-reach ate fewer vegetables than easy-to-reach parents. This research suggests that participants who are more difficult to reach may be at higher risk for poor dietary intake. They also may be more likely to benefit from program participation. Multiple calls are merited to ensure that programs reach groups with the highest needs and to prevent nonresponse bias.

Mapping Questions from Various CDC Surveillance Systems to Healthy People 2010 Indicators: The Data Element Mapping Project (P-42)

Authors: A. Lekiachvili; S. Hamdan; A. Zlot; J. Gilliland

Purpose of the Program: The ability to classify surveillance system questions and metadata serves important programmatic purposes, such as evaluating how well a program addresses specific health topics.

Setting: The major obstacle to cataloging surveillance system questions into categories has been the lack of a common framework that is both comprehensive and rational. Some categories are limited to a particular domain, whereas others do not seem applicable to public health.

Interventions: The Data Element Mapping Project (DEMP) attempts to analyze relationships between health indicators and surveillance system questions by creating a framework based on *Healthy People 2010* indicators. Each indicator is treated as a domain. Surveillance systems attempt either to measure an indicator's progress toward its objectives or to measure compounding factors for a particular indicator in order to support movement toward the target objective.

Outcomes: This approach results in an acceptable and rational classification system that is useful for both the research community and public health programs.

Conclusions: The DEMP enables programs to identify gaps and opportunities, and it can be used as an evaluation tool. It also provides metadata information, allowing researchers to easily access relevant information for research and analyses within a particular domain.

Mental Health and the Guide to Community Preventive Services: The Role of the Community, the Family, and the Provider in Improved Management of Major Depression (P-43)

Author: G.R. Janes

Purpose of the Program: To identify and promote evidence-supported, population-based interventions for the primary, secondary, and tertiary prevention of major depression through systematic literature review by the Mental Health Team of the CDC *Guide to Community Preventive Services*.

Setting: A team of epidemiologists and behavioral scientists representing CDC, the Substance Abuse and Mental Health Administration (SAMHSA), the National Institutes of Mental Health (NIMH), and academia came together to address mental health issues in general and major depression in particular. Major depression is the leading cause of disability in the developed world and contributes to the severity of several chronic conditions, particularly cardiovascular disease.

Interventions: The Mental Health Team developed a list of 13 interventions that show promise in preventing major depression or mitigating its course and disabling effects. These interventions focus on the health care system; the individual and the family; and the community, including media-based and policy interventions.

Outcomes: Efficacy studies of each intervention are being systematically reviewed and summarized in order to identify those interventions deemed effective.

Conclusions: Each topic-specific review is presented to the independent, nonfederal Task Force on Community Preventive Services, which issues recommendations on the basis of their assessment of the strength of the evidence presented.

Moving from Heart Health to Chronic Disease Prevention: Institutionalizing Change and Building Capacity One Step at a Time (P-44)

Authors: C. Smith; K. Raine; E.N. Khalema

Purpose of the Program: To describe the context, process, and outcomes of moving a provincially based heart health program to an integrated chronic disease prevention approach.

Setting: The Alberta Heart Health Project (AHHP), part of the Canadian Heart Health Initiative, has been working to reduce the incidence of heart disease over the past 15 years. Demonstration projects were undertaken in schools, work sites, and communities to increase capacity for heart health promotion. Recently, work has focused on health organizations, where staff and board members in each of the province's 17 Regional Health Authorities (RHAs) were surveyed to determine organizational capacity (leadership, infrastructure, and will) to undertake heart health promotion.

Interventions: Consistently the RHAs reported that they had neither the staff nor funding to address prevention of heart disease. Recognizing the commonality of chronic disease risk factors and the expressed needs and constraints of the RHAs, the AHHP played a leadership role in facilitating movement to a chronic disease prevention model. New partnerships were formed with diabetes, cancer, and chronic obstructive lung disease prevention organizations.

Outcomes: As a result, a provincial network that aimed at linking local, regional, and provincial players within and beyond health to address chronic disease was developed. This network has developed specific interventions to connect people, develop skills, and advocate for policy change. Additionally, a provincial framework for chronic disease prevention that addresses healthy public policy, surveillance, and best practices has been created.

Conclusions: The strength of the collective voices has leveraged commitment from both the provincial and federal departments of health for chronic disease prevention.

National Evaluation of Walk to School Program: Design and Initial Findings (P-45)

Authors: D.S. Ward; A. Vaughn; L. Linnan; J. Hall; M. Fenton

Purpose of the Program: To describe the national evaluation of the Walk to School (WTS) program and provide initial results from Phase 1.

Setting: Researchers at the University of North Carolina Prevention Research Center and Highway Safety Research Center (HSRC) partnered to conduct a two-part assessment of WTS activities. A national advisory board representing constituent groups advised the investigative team.

Interventions: Registrants from the 2002 WTS Day event were asked to complete a survey (Web, print, or telephone) designed to assess the scope of their WTS efforts. Of approximately 800 persons who registered one or more schools, 550 coordinators completed surveys.

Outcomes: Of these respondents, 85.3% reported offering the WTS Day event; 33.3% reported additional promotions outside the WTS Day; and 20.1% reported their schools made policy or environmental changes to support walking to school. WTS efforts are conducted by a variety of different individuals, including school, agency, and parent.

Conclusions: Participation in the WTS Day itself represents a minimal level of program implementation. Additional promotions outside of WTS Day and policy and environmental changes to support walking to school represent higher levels of program implementation. Phase 2, a cross case-control study of 15 case and 5 control schools, is currently underway to validate these findings. The WTS Day event appears to be an important activity for communities to increase awareness of and interest in active travel to school.

Older Adult Perspectives on Physical Activity: Voices from Multiple Cultures (P-46)

Authors: B.L. Belza; S. Schwartz; S. Shiu-Thornton; J. Walwick; M. Taylor; J. LoGerfo

Objective: To examine barriers to physical activity among underserved, ethnically diverse communities of older adults and seek ways to overcome these barriers.

Setting: Increasing physical activity is a major goal of *Healthy People 2010*. Although the health benefits of physical activity are documented, maintenance of an active lifestyle is a problem for older adults.

Method: Seventy-one participants were recruited through community agencies to participate in the following ethnic-specific focus groups: American Indian/Alaska Native, African American, Filipino, Chinese, Latino, Korean, and Vietnamese. Seven groups with 7–13 members were conducted in participants' first language. Mean age was 71.6 years (SD +7.39). Transcripts were systematically reviewed using content analysis.

Result: Although some findings were specific to each ethnic-linguistic group, several themes emerged across the groups. Participants expressed a desire to combine physical activity with social support programs and preferred to participate in activities with others who share their cultural background. Walking was the exercise of choice. Participants cited health as both a motivator and a barrier to being active. Other barriers were transportation and safety.

Conclusion: Physical activity programs designed to reach ethnically diverse older adults should seek to foster relationships among participants, provide exercise options, offer programs at residential sites, partner with social service programs, educate families, offer low or no-cost classes that are culture-specific, and involve older adults in program development.

Outcomes of a Family-Based Diabetes Control and Prevention Program at the U.S.-Mexico Border (P-47)

Authors: N. Teufel-Shone; R. Drummond

Purpose of the Program: To build family support for the diabetic patient and to encourage primary prevention behaviors among family members.

Setting: The University of Arizona collaborated with community health agency partners to develop, implement, and evaluate a diabetes prevention program for families in two Arizona border communities. University partners provided technical assistance and evaluation, while local community health outreach workers delivered the program and assisted with data collection.

Interventions: The program, which was delivered over 10 weeks, focused on healthy choices, goal setting, and family support behaviors. One agency delivered the program in individual family homes, while the other used a central location to work with 5–10 families.

Outcomes: Seventy-two families (249 total participants including children and grandchildren) participated. Results of pre/post tests (n=116) indicated a significant increase in family participation in physical activity and a trend toward greater family cohesion. Other outcomes, including knowledge of diabetes risk factors and dietary changes, varied by site. Qualitative interviews (n=48) from both sites indicated that the program had a positive psychosocial impact on patients and family members.

Conclusions: A family-based diabetes prevention program that emphasizes family support, communication, and family health behaviors is feasible. Community context and delivery style may influence the outcomes.

Overweight and Obesity in the Community Health Care Setting: PrimaryCare Provider Documentation (P-48)

Authors: P.A. Doyle; G.J. McAvay

Objective: To measure the prevalence of medical record documentation of overweight/obesity by primary care providers working in community health care centers in Connecticut.

Setting: Four community health care centers in Connecticut.

Method: Medical records of approximately 1,000 pediatric and adult patients from four community health care centers are being reviewed. A stratified random sample was generated from lists of patients who received a preventive care visit during a 1-year period. The primary outcome measure of this study will be the presence/absence of documentation of overweight/obesity in the medical record. Information on height, weight, body mass index (BMI), age, and sex are being abstracted to characterize patient samples.

For adult patients with BMI >25kg/m² or documented overweight/obesity, we are reviewing medical records for documentation of risk factor assessment and weight management. For pediatric patients with BMI-for-age >85th percentile or documented overweight/obesity, we are looking for documentation of risk factor assessment, family history, and parental concern.

Result: Results were expected to be available in October 2003. Analyses included descriptive statistics to describe the prevalence of documented overweight/obesity. Subgroup comparisons also were being conducted.

Conclusions: Obesity is a public health crisis in the United States. The information derived from this study will highlight the problem of obesity in Connecticut and explore ways to care for this population.

Percentages of the Eligible Population Screened Through the National Breast and Cervical Cancer Early Detection Program (P-49)

Authors: F.Tangka; S. Chattopadhyay; J. Dalaker; J. Gardner; J. Royalty; I.J. Hall; A. DeGroff; G. Alshafie; D. Blackman

Objective: To estimate the number of poor and uninsured women aged 18–64 years who are eligible for the National Breast and Cervical Cancer Early Detection Program (NBCCEDP). To estimate the percentage of eligible women and the percentage of all U.S. women in appropriate age groups who were screened for breast and cervical cancer through the NBCCEDP.

Setting: We used current population survey data to produce national and state estimates of the number of all women aged 18–64, 40–64, and 50–64 years and of the number eligible for the NBCCEDP.

Method: We then used these estimates and NBCCEDP screening data to calculate percentages of eligible women and of all U.S. women in age-specific groups who had been screened for breast and cervical cancer by the NBCCEDP during 1999–2001.

Result: Ten percent, 7%, and 6% of all U.S. women aged 18–64, 40–64, and 50–64 years, respectively, are eligible for the NBCCEDP. For cervical cancer, the NBCCEDP is screening 6% of eligible women and 0.6% of all women aged 18–64, 16% of eligible women and 1% of all women aged 40–64, and 20% of eligible women and 1% of all women aged 50–64. For breast cancer, the NBCCEDP is screening 12% of eligible women and 0.9% of all women aged 40–64 and 21% of eligible women and 1% of all women aged 50–64. Screening percentages vary from state to state.

Conclusion: With current congressional appropriations and screening mechanisms, the NBCCEDP is reaching 6%–21% of eligible women. Our findings suggest the need to access more eligible women.

Planning for Evaluation and Evaluation Capacity Building: An Example from Oral Health (P-50)

Authors: S.R. Lavinghouze; D. Compton

Purpose of the Program: Good program evaluation is the process of documenting success and providing information for decision-making in a manner that is both feasible and practical. The key challenge is determining what would be both necessary and useful to learn as well as feasible to implement.

Setting: The Division of Oral Health at CDC is collaborating with funded states to co-create a process for evaluating oral health programs nationwide. This 2-year effort is designed to develop practical, useful, and timely evaluation designs for 3 oral health program components and to assess evaluation capacity within sites. The longer-term goal is to collaborate with funded sites to create possibilities for increasing evaluation capacity at the state and local level.

Interventions: Using the Utilization-Focused Evaluation approach, we adopted a participatory model to guide the process and a framework for evaluation capacity-building (ECB) to assess current evaluation capacity and incorporate quality evaluation into oral public health program operation.

Outcomes: In this presentation, we will provide an overview of the utilization-focused model and the ECB framework. We will describe how these are operationalized in the field to assist sites and stakeholders in planning practical, feasible evaluations that produce results for program planning and decision-making. We will also present the conceptual framework tool used during stakeholder meetings.

Conclusions: Intentional planning of an evaluation with stakeholders assists in the development of evaluation activities that are practical and feasible and that produce results useful for program improvement and decision-making.

Prevalence of Overweight Among 4th, 8th-, and 11th-Grade Students in Texas, 2000–2001 and 2001–2002 (P-51)

Authors: D.M. Hoelscher; S.H. Kelder; C.S. Barroso; R.S. Day; J.L. Ward; E.S. Lee; R.F. Frankowski

Objective: To examine differences in the prevalence of childhood overweight among 4th-, 8th-, and 11th-graders in Texas in 2000–2001 and 2001–2002.

Setting: Although national estimates of child overweight (body mass index [BMI] >95th percentile by sex/age) are available, representative samples for states are limited. The Youth Risk Behavior Survey (YRBS) provides state data on the prevalence of overweight among high school students, but these data are self-reported, and no data are available for elementary and middle school students.

Method: A probability-based survey of 15,213 4th-, 8th-, and 11th-grade students in Texas was conducted in 2000–2001 and 2001–2002. BMI was calculated from participants' measured height and weight, and demographic information was collected from a self-administered questionnaire. Data collection periods were weighted to represent grades within racial/ethnic groups for the state.

Result: In 2000–2001, the prevalence of overweight was 22.4% for 4th-graders, 15.5% for 8th-graders, and 19.1% for 11th-graders. In 2001–2002, the prevalence was 29.0% for 4th-graders, 18.3% for 8th-graders, and 13.5% for 11th-graders. The highest prevalence of overweight was among 4th-grade boys (35.5%) and 4th-grade Hispanics (35%) in 2001–2002. The lowest prevalence was among 11th-grade whites/others (9.2%) and 11th-grade girls in 2001–2002 (11.0%). Prevalence estimates for the two data collection periods were not significant (i.e., confidence intervals did not overlap).

Conclusion: Overweight prevalence among 4th- and 8th-graders in Texas is higher than national estimates. Fourth-graders, boys, and Hispanics had the highest prevalence of overweight, and 11th-graders, girls, and whites/others had the lowest.

Prevalence of Overweight/Obesity and Comorbid Conditions Among U.S. and Kentucky Adults, 2000–2002 (P-52)

Author: T.M. Jenkins

Objective: To explore differences in prevalence of overweight/obesity and associations with comorbid conditions among U.S. and Kentucky adults (aged 18 years or older).

Setting: Since 1991, the prevalence of obesity among U.S. adults has nearly doubled. Because of this trend, *Healthy People 2010* designated overweight/obesity as a national leading health indicator.

Method: We performed a secondary analysis using 2000–2002 data from CDC's Behavioral Risk Factor Surveillance System (BRFSS). Overweight/obesity classifications were derived from self-reported height and weight: Normal, body mass index (BMI) = 18.5–24.9; Overweight, BMI = 25.0–29.9; Obesity-Class 1, BMI = 30.0–34.9; Obesity-Class 2, BMI = 35.0–39.9; Obesity-Class 3, BMI = 40.0+. Age-adjusted prevalence estimates were calculated for the United States and Kentucky. Odds ratios were calculated to assess associations between BMI and selected comorbid conditions.

Result: During 2000–2002, 24.2% of Kentucky adults were obese, compared with 21.9% of U.S. adults ($P < .0001$). Also, more adults were overweight in Kentucky (62.8%) than nationwide (59.7%) ($P < .0001$). Multivariate logistic regression showed that overweight and obese adults in both Kentucky and the United States were more likely to have diabetes, asthma, arthritis, high blood pressure, high cholesterol, and fair/poor health status.

Conclusion: Rates of overweight/obesity in Kentucky are significantly higher than U.S. rates. However, overweight/obese adults in Kentucky were no more likely than their U.S. counterparts to report other comorbid conditions after adjusting for BMI, age, sex, race, education, and smoking status.

Prevalence of Soda, Milk, and Fruit Juice Consumption Among Texas Students in Grades 4, 8, and 11 (P-53)

Authors: C.S. Barroso; S.H. Kelder; D.M. Hoelscher; J.L. Ward; S. Day; E. Lee; R. Frankowski

Objective: To examine the prevalence of soda, milk, and fruit juice consumption among representative samples of schoolchildren in 4th, 8th, and 11th grades in Texas.

Setting: High soda consumption is correlated with low milk consumption and poor bone and dental health. Several population-based surveys have measured beverage consumption in middle and high school students, but few have examined this behavior in elementary school students.

Method: The School Physical Activity and Nutrition (SPAN) surveillance system measured nutrition and physical activity behaviors among a probability sample of three grade levels ($n = 15,123$) in Texas during 2000–2002 using the School-Based Nutrition Monitoring surveys.

Result: The prevalence of 4th-grade boys drinking milk 3+ times/day was 17.8%; fruit juice, 8.9%; and soda, 10.5%. The prevalence of 4th-grade girls drinking milk 3+ times/day was 14.2%; fruit juice, 7.7%; and soda, 5.1%. For the 8th grade, the prevalence of boys drinking milk 3+ times/day was 19.7%; fruit juice, 9.2%; and soda, 17.8%. The prevalence of 8th-grade girls drinking milk 3+ times/day was 9.5%; fruit juice, 6.0%; and soda, 15.5%. For the 11th grade, the prevalence of boys drinking milk 3+ times/day was 17.3%; fruit juice, 5.2%; and soda, 19.0%. The prevalence of 11th-grade girls drinking milk 3+ times/day was 6.1%; fruit juice, 4.6%; and soda, 11.4%.

Conclusion: Results indicate that beverage choices vary by grade. Soda consumption increases with grade level, and both milk and fruit juice consumption decline with grade level.

Preventive Screening Examinations Among Males Aged 40 Years or Older: Barriers and Motivating Factors (P-54)

Authors: J. Hunter; C. Lacy-Martinez; M. Fernandez; I. Morales; K. Reinschmidt

Objective: To assess factors associated with chronic disease screening examinations among men aged 40 years or older living along the U.S.–Mexico border in order to develop successful health promotion and disease prevention strategies for this population.

Setting: Male and female community members and staff members from local health clinics along the U.S.–Mexico border.

Method: Three groups were interviewed about preventive health care practices and behaviors among men aged 40 years or older. Clinicians and former female participants of a chronic disease screening intervention were questioned about male health care practices and behaviors. Nonparticipating clinicians in two other border communities were interviewed to assess health care practices among men living along the border. Finally, men were interviewed about their health history and perceptions and their access to and use of health care services.

Result: Data were triangulated across the three groups (clinicians, females, and males) to explore identified similarities and differences. Barriers to male participation in preventive screening examinations included denial of being or becoming ill, lack of health insurance, fear of diagnosis or finding a serious condition, and lack of knowledge. Motivating factors included family support; community health outreach workers; and education about health, screening guidelines, and available resources.

Conclusion: Defining barriers to and motivating factors for male participation in preventive screenings is necessary for development of successful health promotion and disease prevention strategies.

Productivity Estimates for Calculating Indirect Costs of Chronic Disabling Conditions (P-55)

Author: S.D. Grosse

Purpose of the Program: To describe the calculation of the economic value of paid employment and household work in analyses of the costs of chronic illnesses from the societal perspective.

Setting: Analyses of the costs of chronic illnesses often are restricted to direct costs of medical care. Indirect costs associated with temporary or permanent disability and premature mortality may exceed direct costs. CDC recently published productivity estimates that can be used to calculate indirect costs when combined with condition-specific estimates of disability or premature mortality.

Interventions: Earnings were calculated using year 2000 labor survey data. Household services were calculated on the basis of time-use data collected during 1992–1994 on the National Human Activity Pattern Survey. Age- and sex-specific estimates are presented of the cost of days lost to temporary disability and of discounted lifetime costs for permanent disability using discount rates ranging from 0% to 10%. Estimates are presented for earnings losses and for combined paid and unpaid work.

Outcomes: The value of a lost day of work is \$165 in year 2000 dollars, whereas the value of a lost unspecified day is \$108. Assuming a 3% discount rate, the present value of future earnings and household production decreases with age from \$1.4 million at age 20–30 to \$1 million at age 45, \$0.4 million at age 60, and \$115,000 at age 75.

Conclusions: Productivity decreases with age but remains an important component of the economic impact of chronic illnesses, even among older adults.

Quality of Care in Ambulatory Care Settings: Are Patients with Hypertension Receiving Recommended Pharmaceutical Interventions? (P-56)

Authors: E. Hing; J.S. Holmes

Objective: To determine whether patients with hypertension and certain comorbidities are being prescribed first-line antihypertensive therapies recommended by the 6th Joint National Committee on Prevention, Evaluation and Treatment of High Blood Pressure.

Setting: Ambulatory visits to physicians' offices and hospital outpatient departments in 2001.

Method: This study used data from the National Ambulatory Medical Care Survey and the National Hospital Ambulatory Medical Care Survey. In 2001, both surveys were conducted as split panel surveys to test two data collection forms. Each panel was weighted to produce national visit estimates. This study, which was based on one of the panels, used multiple items from the form to identify patients with hypertension and comorbid conditions (diabetes and ischemic heart disease). Data on visits were reweighted by number of visits during the last 12 months to approximate patients. Patients were assessed for antihypertensive drug treatment relative to evidence-based guidelines.

Results: In 2001, approximately 45 million patients with hypertension made 118 million visits to physician offices and hospital outpatient departments. About 51% (23 million) of these patients received at least one antihypertensive drug. Among patients receiving treatment for uncomplicated hypertension, 49% received a prescription for a diuretic, a beta-blocker, or both.

Conclusion: Despite the existence of evidence-based guidelines for the pharmaceutical treatment of high blood pressure, many hypertensive patients are not receiving first-line interventions.

Reported Dental Visits Among Persons with Diabetes, 1999–2002 (P-57)

Authors: P. Eke; L. Barker; G. Thornton-Evans; D. Malvitz

Objective: To assess changes from 1999 to 2002 in the percentage of persons with diabetes reporting dental visits or cleanings in the preceding 12 months.

Setting: Diabetes increases the prevalence, incidence, and severity of periodontitis. *Healthy People 2010* calls for increasing the proportion of persons with diabetes who have at least an annual dental examination to 75%.

Method: All 50 states administered oral health core questions on dental visits and dental cleaning in their 1999 and 2002 Behavioral Risk Factor Surveillance System (BRFSS) surveys. We computed the percentage estimates of persons with diabetes (excluding pregnancy diabetes) who reported at least one dental visit or cleaning within the preceding 12 months.

Result: The national percentage estimates (about 60%) did not change significantly from 1999 to 2002. Only Utah had reached the *Healthy People 2010* target (76% in 2002). However, during this period, the percentage of dental visits or cleanings among persons with diabetes increased significantly in eight states and the District of Columbia. Estimates for three Southeastern states declined significantly from 1999 to 2002.

Conclusion: By 2002, one state had reached the *Healthy People 2010* target of 75%, and five states had exceeded 70%. Estimates from three states declined during this period, and eight states were well below the *Healthy People 2010* baseline (58% in 1997).

Seasonal Effect on Estimates of Physical Activity, Montana, 2001–2003 (P-58)

Authors: C.S. Oser; L.L. Blades; C.C. Fogle; T.S. Harwell; J. Oreskovich; S.D. Helgersen

Objective: Assess the effect of season of the year on estimates for physical activity.

Setting: Self-reported physical activity levels are used to measure progress toward program objectives. The Montana Cardiovascular Health Program surveyed four communities—two in the winter (W1, W2) and two in the summer (S1, S2). Montana Behavioral Risk Factor Surveillance System (BRFSS) data also were assessed for statewide physical activity patterns.

Method: BRFSS-like telephone surveys were conducted among 800–815 respondents from each community. Community populations were 57,000 for W1, 27,000 for S1, 25,000 for W2, and 14,000 for S2. Communities W1 and S1 included universities. For each community, a list of telephone numbers was generated; then, a simple random sample of these numbers was selected. The survey consisted of 83 questions, including intensity and duration of physical activity. Standard definitions for “active” and “sedentary” physical activity were used.

Result: Respondents had average ages of 49 (W1), 50 (S1), 54 (W2) and 58 (S2) years. The proportion of persons who were physically active was significantly greater in the summer: 56% (S1) versus 45% (W1), OR = 1.57 (1.28–1.92), and 46% (S2) versus 38% (W2), OR = 1.37 (1.12–1.68). The proportion who were sedentary was significantly greater in the winter: 26% (W1) versus 14% (S1), OR = 2.17 (1.67–2.82), and 31% (W2) versus 22% (S2), OR = 1.59 (1.27–2.00). Statewide BRFSS seasonal results were similar.

Conclusion: When evaluating achievement of physical activity objectives, state heart disease/stroke programs must be cognizant of the season of the year in which assessments are conducted, at least in northern states like Montana.

Sex Differences in Asthma Prevalence and Other Control Characteristics in Eight States (P-59)

Authors: L. Rhodes; J.E. Moorman

Objective: To examine sex differences in asthma prevalence and other control characteristics such as age at diagnosis, medical care ascertainment, asthma episode or symptom frequency, medication use, activity limitation, and sleep interruption.

Setting: State-based estimates for asthma control characteristics are lacking for U.S. adults. Sex differences have been reported for asthma prevalence but have not been studied in conjunction with control characteristics by sex.

Method: Data were extracted from the Behavioral Risk Factor Surveillance System (BRFSS), a continuous random-digit-dialed telephone survey of U.S. adults. In 2001, eight states included the adult asthma history module as part of their state BRFSS survey. Asthma control status was assessed by sex. Control characteristics were studied using the adult asthma module by sex for respondents who self-reported having asthma.

Result: In the eight states, 9.1% of women self-reported currently having asthma compared with 6.1% of men. For each of the eight questions, a higher percentage of women self-reported the asthma control characteristic than men. The percent differences were statistically significant ($P < .05$) for six of the eight asthma characteristics: medication use, asthma attacks, activity limitation, emergency room visits, urgent doctor care, and routine asthma checkups. Women were more likely than men to report being first diagnosed with asthma as an adult.

Conclusion: Opportunities to improve asthma control in women are evident in the eight states using the adult asthma module.

Smoking While Having Asthma in Missouri: Implications for Health Education (P-60)

Authors: S. Yun; J. Jackson-Thompson; F. Chanetsa; B. Zhu

Objective: To investigate the prevalence rates and demographic distribution of active and passive smoking among Missourians currently living with asthma.

Setting: The prevalence of asthma continues to increase dramatically across the United States and in Missouri. Smoking is known to be an important triggering factor for asthma attacks. However, the prevalence and demographic distribution of active and passive smoking among asthmatic Missourians are unknown.

Method: Data came from the Missouri County Level Adult Tobacco Survey (MCLAT), a survey conducted in 2002–2003 among adults aged 18 years or older. The questionnaire included questions from the Adult Tobacco Survey, supplemented with questions on chronic diseases, behavior risk factors, and health screening behaviors from the Behavior Risk Factor Surveillance System. Respondents reported whether they currently had asthma and whether they were current smokers.

Result: Overall, 7.9% of Missourians currently had asthma. Approximately 26.1% of asthmatic Missourians and 27.1% of non-asthmatic Missourians were current smokers ($P > 0.05$). Also, 30% of asthmatic Missourians lived in a household where at least one person smoked (not including themselves), and 72.3% of those households allowed smoking inside the home. Logistic regression showed that smoking rates for low-income ($< \$20,000$) and middle-aged (35–64 years) asthmatic Missourians were significantly higher than rates for other income and age groups ($P < 0.05$).

Conclusion: High proportions of asthmatic Missourians are current smokers or exposed to secondhand smoke at home.

SPEAK to Your HEALTH!: A Community Survey from the Prevention Research Center of Michigan (P-61)

Authors: K. Alaimo; J. Brady; P. Isichei; S. Morrel-Samuels; M. Periard; T. Reischl; L. Shirey

Objective: To describe the process and results of developing, implementing, analyzing, and using a local health survey that used the Community-Based Research Principles of the Prevention Research Center of Michigan.

Setting: A survey called SPEAK to Your HEALTH! was collaboratively designed to examine social determinants of health in order to promote beneficial changes in the community. Participating organizations included community-based organization (CBO) partners, the Genesee County Health Department, the Greater Flint Health Coalition, the University of Michigan-Flint, and the University of Michigan School of Public Health.

Method: The survey gathered information about behaviors, attitudes, and beliefs of residents. Topics included neighborhood satisfaction, trust, and activism; perceptions of neighborhood safety; general health; diabetes screening; overweight; health insurance coverage; health care access and satisfaction; race/ethnicity identity and discrimination; the penal system; religious activity/spirituality; social support; emotional health; smoking; alcohol; fruit and vegetable intake; and physical activity.

Result: Associations between neighborhood characteristics, health behaviors, racial and ethnic identity and discrimination, the penal system, and health access will be presented. Geographic mapping will illustrate the spatial distribution of prevalence estimates.

Conclusion: Community-based principles can be used to conduct survey research that is relevant and has practical applications. We will discuss how CBOs, health providers, and local funders have used the data for their own purposes.

Spreading the Word in School Nutrition: The *Making It Happen* Project (P-62)

Authors: M.L. McKenna; J.A. Stauss

Purpose of the Program: As the prevalence of overweight among children increases, the nutritional quality of foods in schools is coming under closer scrutiny. In response, the Centers for Disease Control and Prevention (CDC) and the U.S. Department of Agriculture (USDA) compiled *Making It Happen*, a publication that provides 20 case studies and practical information about implementing change in nutrition environments at the district and school level.

Setting: We identified potential cases from across the country using such means as media report reviews and personal contacts. We conducted interviews with school and district personnel, wrote the case studies, and verified the results from each. The resulting collection includes schools in rural and urban settings and with large and small student enrollments.

Interventions: The practical information and case examples pertain to six key strategies for changing school nutrition environments: policies, contracts, food choices, accessibility, marketing, and fund-raising.

Outcomes: Districts and schools reported a variety of outcomes, including development of policies, addition of new food and beverage items, increased emphasis on marketing healthy choices, and negotiation of vending contracts that address health concerns.

Conclusions: *Making It Happen* complements existing school nutrition publications and public health priorities that are designed to motivate others to change, provide ideas on strategies for achieving change, and reinforce the fact that change is needed. Future plans are to post cases on the Internet and expand the number of case studies.

State Trends of Uninsured Persons Aged 18–64 Years, 1992–2001 (P-63)

Authors: D.E. Nelson; J. Bolen; H. Wells; S. Smith

Objective: To describe state trends of uninsured adults aged 18–64 years during 1992–2001.

Setting: 47 states.

Method: Logistic regression models were used to examine state-specific Behavioral Risk Factor Surveillance System trend data for uninsured persons from 1992 through 2001 in 47 states. In addition to overall state trends for uninsured persons, we examined state-specific trends by age group, household income, and employment classification.

Result: Overall, the number of uninsured persons increased in 35 states and was unchanged in 12 states. States reported increases among persons aged 30–49 years (34 states) and 50–64 years (24 states), among persons with middle incomes (39 states) and low incomes (19 states), and among persons who were employed for wages (33 states) and those who were self-employed (18 states).

Conclusion: The number of uninsured persons increased in most states during 1992–2001. Decreased availability of employer-sponsored health insurance, rising health care costs, and state fiscal crises are likely to worsen this growing problem. These trends are ominous, given the association between the failure to receive clinical preventive health services and lack of insurance.

State-Specific Direct and Indirect Costs of Arthritis and Other Rheumatic Conditions, 1997 (P-64)

Authors: L. Murphy; E. Yelin; L. Trupin; M. Cisternas; C.G. Helmick

Objective: To estimate the 1997 state-specific direct and indirect costs attributable to arthritis and other rheumatic conditions (AORC).

Setting: Cost estimates are key in state programs' advocacy work as the economic burden of disease indicators are being used increasingly to promote awareness of public health issues and develop appropriate policies. We present the first population-based, state cost estimates for AORC from Medical Expenditure Panel Survey (MEPS) and Behavioral Risk Factor Surveillance Study (BRFSS) data.

Method: National direct and indirect cost estimates were derived from MEPS. State-specific direct and indirect cost estimates were generated by multiplying the MEPS estimates by each state's proportion of the national doctor-diagnosed arthritis prevalence. The latter was obtained from the 2001 BRFSS.

Result: In 1997, total direct costs for AORC by state ranged from \$72 million in Wyoming to \$4,955 million in California, with a median of \$726 million. Indirect costs ranged from \$91 million (Wyoming) to \$6,318 million (California), with a median of \$926 million.

Conclusion: State-specific costs of AORC are substantial, with indirect costs (i.e., from lost employment) accounting for a larger proportion than direct costs (i.e., medical expenditures). Some of these costs may be preventable through greater use of new and existing interventions.

The Effect of Technical Assistance on a Texas Department of Health Initiative for School Health Promotion (P-65)

Authors: R. Atwood; B. Miller; N. Gottlieb; J. Bartholomew; C. Crider

Objective: To determine the effectiveness of technical assistance from a state university to help schools funded with minigrants from the Texas Department of Health to conduct school-based work site health promotion programs.

Setting: Sixteen elementary schools received \$2,500 minigrants from the Texas Department of Health Obesity Program to implement work site health promotion programs focused on physical activity and fruit and vegetable consumption.

Method: In addition to the funding, eight intervention schools received a newsletter, a listserv, pedometers, and technical assistance from a state university. Eight comparison schools received only funding and monitoring by the health department. Each school designed its own program. Faculty/staff participants were surveyed at baseline (n = 527) and 6 months later (n = 507). In the intervention schools, interviews were conducted postprogram with key stakeholders.

Result: The intervention schools increased significantly more than the comparison schools on an in-school physical activity index (3.6 versus .6) and an in-school 5-A-Day index (2.6 versus .4). In intervention schools, the percentage of participants averaging over 10,000 steps per day increased from 35.7% to 59.6%. Interviews with intervention school personnel indicated that administrator involvement and wellness program coordinators with energy, creativity, and relationship-building skills were key to program success. Other factors that affected program success were the effectiveness of the wellness committee, establishment of a districtwide wellness program and a school health advisory committee, and the involvement of parent-teacher groups.

Conclusion: Technical assistance was essential for schools funded by the health department to increase physical activity and fruit and vegetable consumption by faculty and staff members through work site health promotion.

The Healthy Life Radio Show (P-66)

Author: K. Hatcher

Purpose of the Program: To use community radio broadcasting to provide education and information on chronic disease prevention and control.

Setting: African Americans aged 18–64 years in the Baltimore area who listen to WOLB 1010, a local AM radio station targeting African Americans.

Interventions: The Center for Preventive Health Services conducted a mass media campaign using radio broadcasting as a cost-effective and innovative way to promote chronic disease prevention, targeting at-risk populations. WOLB targets African Americans with news and audience participation shows. The chronic disease broadcasts, called the Healthy Life Show, began in October 2000 airing weekly, hour-long radio shows highlighting community-based activities. A facilitator discusses nutrition, physical activity, and chronic disease prevention with experts in these areas. Arbitron ratings consistently indicate a listening audience of 3,000 per broadcast.

Airtime for the program costs \$7 per minute. In comparison, the cost for a 1-minute spot on a top-rated station in Baltimore is \$300–\$600. The cost per listener is 7 cents, significantly less than print literature or group interventions.

A survey was conducted through the Healthy Life Show Web site to measure behavioral changes reported by broadcast listeners.

Outcomes: Eighty percent of listeners indicated that they increased their physical activity as a result of the broadcasts. Forty-two percent reported that the broadcasts caused them to take measures to eat healthier, increase their physical activity, and lower their blood pressure. Sixty percent of presenters received inquiries about their programs.

Conclusions: The Healthy Life Show has proven to be an effective way to provide chronic disease information to targeted populations.

Using Medicare Claims to Monitor Diabetes Costs at the County Level (P-67)

Authors: J. Desai; H. Devlin

Objective: To assess the usefulness of Medicare claims for monitoring county-level, reimbursed hospital charges for persons with diabetes.

Setting: Local planners need information about diabetes costs, but few data sources exist for monitoring diabetes costs at the county level.

Method: The Minnesota Diabetes Program at the Minnesota Department of Health, working with Stratis Health, Minnesota's Medicare Quality Improvement Organization (QIO), used Medicare data to calculate county-level Medicare reimbursed charges among persons with diabetes aged 65–74 years enrolled in fee-for-service care. The diabetes population was identified for two 12-month periods (April 1, 1998 to March 30, 1999 and July 1, 2000 to June 30, 2001) according to Center for Medicaid and Medicare Services specifications. Reimbursed charges were assessed for all hospital discharge claims and by type of event where diabetes was listed as the primary diagnosis.

Result: Total reimbursed charges rose 35% in Minnesota, from \$67 million to \$91 million. Change among Minnesota's 87 counties ranged from a 71% decrease to a 445% increase in charges; 73 of 87 counties had increases over time. During 2000/2001, county-level reimbursed charges per claim ranged from \$3,592 to \$19,990. Changes in charges per claim and by type of event will be discussed, as will the methodology used to identify the diabetes population and the limitations of Medicare data.

Conclusion: State diabetes programs should partner with their Medicare QIOs to make such data available to counties in their states. They also should make clear the limitations of this data.

Using Partnerships and Collaborative Relationships to Increase Cost-Effectiveness and Reduce Health Disparities: The Oklahoma BCCEDP Program (P-68)

Authors: C.A. Leon; A.M. Yerkes; C.M. Jones; J.A. Campbell; L.S. Lamb; T.M. Yancey

Purpose of the Program: To increase cost-effectiveness and reduce disparities in services to diverse populations in Oklahoma.

Setting: Oklahoma has a diverse population because of Native American removal, the Black Towns that sprouted after the Civil War, and the Boomers during the land run. Recently, Hispanic and Asian populations have been increasing, and a disproportionate number of these groups lack health care coverage.

Interventions: The Oklahoma BCCEDP Program has collaborated with public, private, volunteer, tribal, and faith-based groups to provide culturally appropriate screening for breast and cervical cancer. Examples of collaborative activities to provide ongoing service and reduce health disparities among Native American, Hispanic, and Asian women will be identified and discussed.

Outcomes: Results will be shared from the various groups. For example, the Asian Health Fair resulted in 33 clients screened. Fifteen clients had never had a clinical breast examination or mammogram, and 11 had never had a Pap smear. One high-grade squamous intraepithelial lesion was detected from the group of women who were rarely or never screened.

Conclusions: Collaborations, culturally sensitive interventions, and assessments of the cost savings, rates of participation, and evaluation outcomes have helped to reduce disparities for early diagnosis and access to treatment for Oklahoma's diverse populations.

Using Three Data Sources to Obtain a Complete List of Food Stores in Underserved Communities (P-69)

Authors: A.E. Ronsani; A.S. Hosler; D. Varadarajulu

Objective: To obtain a complete list of food stores in three communities in upstate New York.

Setting: Diabetics living in underserved communities may have limited access to diabetes-friendly foods. An assessment of the availability of appropriate foods was performed in all food stores located in target communities. Previous studies of food stores have generally used lists from state agricultural departments exclusively.

Method: We used the following three data sources to identify food stores: a list from the New York State Department of Agriculture and Markets (NYSDAM), online yellow pages, and a Web-based listing of fresh produce stores from NYSDAM. All of the stores were telephoned to determine if they met our definition of a food store. Stores that met our definition were visited and assessed.

Result: Overall, 41.1% of stores were identified exclusively through the NYSDAM list, 10.4% exclusively through online yellow pages, and 3.3% exclusively through the NYSDAM Web site. In addition, 43.6% of stores were found through both the NYSDAM list and online yellow pages, whereas 1.2% were found through both the NYSDAM list and the NYSDAM Web site. No stores were found using both the online yellow pages and the NYSDAM Web site.

Conclusion: Using more than one data source allowed a more complete assessment of food stores in our target communities. Some stores would have been missed if we had relied on the NYSDAM list alone.

Why Promotoras are Effective: Community-Based Chronic Disease Prevention Among Hispanic Women (P-70)

Authors: K. Reinschmidt; J. Hunter; M. Fernandez; I. Morales; C. Lacy-Martínez

Objective: To understand the roles and characteristics of promotoras and the reasons why their work increases the effectiveness of chronic disease screening among women aged 40 or older along the U.S.–Mexico border.

Setting: Female residents of one rural border community and local clinicians.

Method: Structured, open-ended interviews with women and clinicians who had participated in a promotora intervention as part of a three-phase, randomized, controlled study. Questions focused on the promotora's role and services, her characteristics, and the benefits and challenges of using a promotora in chronic disease prevention. Clinicians from other clinics were interviewed to explore the feasibility of disseminating this intervention to other areas with similar populations.

Result: Data showed that the promotora provides health education and facilitates routine and follow-up care. She is effective because she serves as a bridge between the clinic and the community. Clients appreciate her sociocultural attributes and her personal skills and qualities. Clinicians from all three clinics recommended working with a promotora to increase compliance in chronic disease prevention.

Conclusion: Understanding the factors that influence promotoras' effectiveness is imperative for successful, community-based chronic disease prevention interventions that use a promotora model.



roundtable discussion abstracts

Communication Research and Promising Practices for Stroke Prevention (RT-01)

Authors: S.J. Lockhart; L. Shaham; J. Levine

Purpose of the Program: In the United States, stroke is the third leading cause of death, a major cause of long-term disability, and a drain of more than \$51 billion per year on the national economy. Strokes often have warning signs that are critical for patients and those around them to recognize. People who seek appropriate care immediately avoid increased damage and risk of disability and reduced chance of survival.

Setting: As part of its population-based approach, CDC's Heart Disease and Stroke Prevention Program is working with its state programs and Ogilvy Public Relations Worldwide to improve communication about primary and secondary prevention of stroke.

Interventions: The stroke communication project began with an analysis of existing health education and communication efforts to reduce stroke morbidity and mortality and with interviews with state heart disease and stroke prevention program staff and national organizations working on stroke issues, including the American Heart Association/American Stroke Association and the National Stroke Association. The project now focuses on identifying needs and opportunities for state programs and their partners to use communication strategies to support policy and environmental changes for stroke prevention.

Outcomes: This presentation will summarize the environmental scan, the formative research, and the promising communication practices for supporting systems changes for stroke prevention, particularly among African Americans.

Conclusions: Information will be included on the Health and Human Services Secretary's Stroke Initiative and on communication products and tools that will be developed for stroke prevention in health care, work site, and community settings.

Community Cancer Assessment in Response to Long-Time Exposure to Perchlorate and Trichloroethylene in Drinking Water (RT-02)

Authors: J.W. Morgan; R.E. Cassady

Objective: To determine whether the observed number of new cancer cases for 16 cancer types and for all cancers combined (1988–1998) in a California community with a long history of perchlorate (rocket fuel) and trichloroethylene in its municipal drinking water differed significantly from the expected number.

Setting: The study was a collaboration of the California Cancer Registry, the National Program for Cancer Registries, and the Surveillance Epidemiology and End Results program.

Method: The number of observed cancer cases was divided by the expected number of cases to produce a standardized incidence ratio (SIR) for each cancer type studied; 99% confidence intervals were calculated, and results were controlled for the effects of age, sex, race/ethnicity, and population size and growth.

Result: No significant differences between observed and expected numbers were found for all cancers combined (SIR=0.97; 0.93-1.02), for thyroid cancer (SIR=1.00; 0.63-1.47), or for 11 other cancer types. Significantly fewer cases were observed than expected for cancer of the lung and bronchus (SIR=0.71; 0.61-0.81) and colon and rectum (SIR=0.86; 0.74-0.99), while more than the expected numbers of cases were found for uterine cancer (SIR=1.35; 1.06-1.70) and skin melanoma (SIR=1.42; 1.13-1.77).

Conclusion: These findings do not identify a generalized cancer excess or thyroid cancer excess.

Enhancing Chronic Disease Prevention at Weyerhaeuser Corporation (RT-03)

Authors: C. Santon; J.R. Harris; J.Kulzer; A. Pellegrini

Purpose of the Program: We reviewed efforts to prevent chronic diseases among Weyerhaeuser's employees and retirees and their adult dependents.

Setting: Weyerhaeuser, a multinational forest-products company with 44,000 USA-based employees.

Interventions: We reviewed health and health-cost profiles at Weyerhaeuser. We then assayed prevention efforts based in health insurance and the work site and identified gaps in these efforts in comparison with evidence-based recommendations from the *Guide to Clinical Preventive Services* and the *Community Guide*. Lastly, we offered gap-filling recommendations, prioritized by cost-effectiveness, feasibility, health importance, and payback period.

Outcomes: At Weyerhaeuser, chronic diseases account for four of the top five causes of death and 20% of health care costs. Health insurance covers most recommended clinical preventive services; however, gaps exist in tobacco cessation. Worksite prevention efforts include health education and the provision of physical-activity facilities, but policy gaps also exist in these areas. To fill gaps, we offer 12 ranked recommendations: 1) establish a tobacco-cessation telephone quit line; 2) ban/restrict smoking; 3) cover tobacco-cessation counseling and over-the-counter cessation medications; 4) provide influenza vaccinations at work sites; 5) reduce/eliminate prevention co-pays; 6) measure preventive behaviors; 7) establish physical activity programs; 8) post stair-use reminders; 9) establish walking trails/sidewalks; 10) offer accountability/reminder/standing-order systems in health insurance; 11) offer focused health education; and 12) establish a sun protection policy.

Conclusions: Weyerhaeuser is exceptionally prevention-oriented, but we readily identified easy-to-fill gaps. Filling these gaps could reduce health care costs by \$49 million annually and could reduce the drag of postretirement health benefits on retained earnings by 25%.

Enhancing State and Community Efforts to Prevent Chronic Diseases (RT-04)

Authors: R. Kirkendall; M. Bondi; F. Wheeler; D. Carr

Purpose of the Program: The goal of this project is to reduce chronic diseases and related complications through printed reports and technical assistance aimed at developing comprehensive, integrated approaches in states and communities. The findings of case studies used to develop an *Action Planning Workbook for Chronic Disease Prevention* will be presented.

Setting: Case studies were conducted on three states and three metropolitan areas with histories of strong, broad chronic disease prevention programs.

Interventions: A group of national experts advised the selection of case study sites and reviewed written materials. Documents from national sources as well as from each site on funding, planning, interventions, evaluation, and health indicators were examined. Health department staff, local partners, and policy makers were interviewed during site visits to supply anecdotes and perspectives for the case studies.

Outcomes: Information from the case studies, known best practices, a literature review, and expert consultation are the basis for the *Action Planning Workbook*. The Workbook provides a framework for comprehensive and integrated approaches and will serve as a template for the technical assistance phase of this project.

Conclusions: States and communities that have a history of broad chronic disease prevention efforts provide models and lessons learned that can be used to develop comprehensive and integrated approaches across the country.

Falls-Prevention Programs for Older Ambulatory Community Dwellers: What Does the Evidence Base Tell Us? (RT-05)

Authors: R. Marks; J. P. Allegante

Purpose of the Program: To review the public health research literature on falls prevention among community-dwelling older adults and derive evidence-based implications for health promotion policy.

Setting: Falls affect one in three older adults living in the community and result in significant fall-related morbidity and mortality among the elderly that constitutes an important and costly public health problem. There are numerous, but potentially modifiable, determinants of falls. Several community falls-prevention programs have been shown to reduce the incidence of falls and fall-related injuries.

Interventions: CINAHL, COCHRANE, EMBASE, MEDLINE, and PUBMED databases were used to search the research literature concerning falls epidemiology, injury mechanisms, and falls-prevention strategies published during 1966–2003.

Outcomes: Our literature search revealed nine meta-analyses on interventions for preventing falls among the elderly. Of these, two were specifically related to hospital-based interventions, and three were related to exercise interventions. We also identified 23 published reports on community-based efforts to reduce the risk of falls using multifactorial approaches. Of these, 15 were conducted in countries other than the United States: Australia (n=3), Canada (n=2), France (n=1), Germany (n=1), Holland (n=1), Japan (n=1), New Zealand (n=3), Scotland (n=1), Spain (n=1), and the United Kingdom (n=1).

Conclusions: There is compelling evidence from public health research to support a health promotion policy of making societal investments in community falls-prevention programs.

Guidance for Selection of Research-Based, Effective Health Education Curricula: A New Initiative at CDC (RT-06)

Authors: H. Wechsler; K.M. Gloppe

Purpose of the Program: The CDC is developing a new initiative to provide assistance in selecting science-based, effective health education curricula.

Setting: State Education Agencies, School Districts.

Interventions: CDC is developing three complementary tools that will be completed in 2004: Health Education Curriculum Analysis Tool (HECAT), Physical Education Curriculum Analysis Tool (PECAT), and The Guide to Health Education Curricula (Guide). The CATs are self-assessment tools for selecting or developing effective curricula to help young people adopt healthy behaviors based on national education standards and CDC guidelines. The Guide will contain expert analyses of critical components of health education curricula, based on the HECAT. Additionally, the Guide will include analyses of outcome evaluation findings and quality of evaluations, whenever possible. Panels of research and program experts will conduct the Guide's analyses. The first edition of the Guide will focus on curricula that promote physical activity and healthy eating. A second phase of this initiative will include tools to aid in dissemination, translation, and institutionalization of effective programs.

Outcomes: This presentation describes a new initiative.

Conclusions: CDC's new initiative will provide the field of school health with guidance on selecting effective health and physical education curricula. Future phases will include adaptation and implementation guidance.

Healthy Weight Awareness Campaign: A Social Marketing Campaign Reaching Low-Income Maine Families (RT-07)

Authors: D. Wigand; J. Leiter; L. Kaley; K. Whalen

Purpose of the Program: To begin to reduce Maine's obesity epidemic by providing specific recommendations for physical activity and nutrition lifestyle changes.

Setting: Collaboration between two divisions in the Bureau of Health and the Maine Nutrition Network developed a social marketing campaign. Campaign focus is on low-income families and children throughout the state.

Interventions: A social marketing campaign with multiple components was developed. Each campaign component used formative research including focus groups, pretesting of messages and materials, and telephone surveys with the target audience. Campaign messages focused on behaviors identified by the target audience as those they were most likely to be able to change. Campaign components included cutting back on soda consumption, reducing television and screen time, increasing lifestyle physical activity, and promoting walking. Methodology included a mix of newspaper, radio, television, and direct mail.

Outcomes: Communication check research compiled after the soda and screen time campaigns indicated that 68% (aided and unaided awareness) of respondents saw the campaigns. The walking and trails campaign generated over 30,000 hits to the Web site that was promoted during the first 2 weeks of the campaign.

Conclusions: This social marketing campaign was designated to assist Maine's efforts in addressing obesity. The campaign messages revolve around simple steps that Maine residents can take to begin to make a difference in their health. The target population of low-income families and children were engaged throughout campaign development.

Medicaid Coverage for Tobacco Dependence Treatment: A Toolkit to Help Expand Coverage for Smokers in the States (RT-08)

Authors: L.A. Bailey; S. Hutchinson

Purpose of the Program: To provide detailed evidence and tools to state Medicaid directors regarding the benefits of tobacco cessation coverage within the Medicaid program.

Setting: The Center for Tobacco Cessation, in collaboration with its partners within the tobacco control community and related academic, government, and public policy sources, developed a set of information from various sources regarding the cost-effectiveness and health benefits of covering tobacco cessation services and treatment under the Medicaid program.

Interventions: Toolkits were disseminated to policy makers, who were encouraged to provide coverage for cessation services for all Medicaid beneficiaries who express interest in smoking cessation.

Outcomes: The strategy of disseminating the toolkit to Medicaid directors, health departments, and advocates will be described.

Conclusions: Follow up with these professionals and the current status of Medicaid coverage by state will be discussed.

Preparing Project Officers of the Future for Effective Chronic Disease Prevention and Health Promotion Partnerships (RT-09)

Authors: M. Dalmat; E. West; C. Stallard; F. Wheeler; A. Slonim; P. Eidson; R. Whitmore; S. Harris; M. Kane; J. Draut; T. Mraz; L. Anderson

Purpose of the Program: Project officers provide frontline assistance to CDC partners. NCCDPHP's 160 project officers play critical roles in designing, implementing, and strengthening programs. Objectives include assessing the knowledge and capabilities needed by project officers to help partners be successful; clarifying project officer functions; developing and piloting training; and enhancing and standardizing CDC technical assistance.

Setting: CDC.

Interventions: Working with the CDD and the Association of State and Territorial Directors of Health Promotion and Public Health Education (ASTDHPPE), we used a Web-based qualitative research method, Concept Mapping, to compare and contrast what internal and external stakeholders think "a project officer should know or be able to do to help partners successfully create and deliver programs." We used this framework to integrate lessons from other inquiries: training interviews of program leaders and project officers; interviews of CDC leaders to forecast future demands on project officers; interviews of former project officers who assumed leadership roles; an examination of lessons from key historical documents like the Bradford-Bales Report that led to the creation of the PHPS Program; a comparative analysis of public health workforce competencies from eleven credible sources; and interviews of partners to discover what makes exceptional project officers so effective.

Results: We mapped this information to core competencies and then onto a systems diagram of key project officer functions and tasks.

Conclusions: We will design innovative, competency-based learning modules that combine classroom, distance, field, and on-the-job learning. We will then pilot-test and evaluate them, and prepare for their widespread use within NCCDPHP, CDC, and beyond.

Promoting Healthy Lifestyles During the Olympic Games: 2002 Tobacco-Free Policy Evaluation Results (RT-10)

Author: K.M. Curran

Purpose of the Program: The 2002 Salt Lake City Olympic Winter Games adopted a tobacco-free policy to promote healthy lifestyle messages to young people as well as to protect the athletes, staff, spectators, journalists, and other visitors from the harmful effects of tobacco. The main objectives of this evaluation were to determine the extent to which persons attending the Olympics were aware of the tobacco-free policy; whether they believed that all cities bidding for the Olympics should be required to adopt a tobacco-free policy; and whether they had seen CDC's anti-tobacco messages on television, on posters, or on other media during the events.

Setting: The evaluation survey was administered to persons attending the Winter Olympics in Salt Lake City.

Interventions: Participants were either interviewed in person or given the evaluation form to complete. A total of 332 persons participated in the survey.

Results: Overall, the results of this evaluation survey underscore the potential of a broad range of strategies (including the distribution of informational materials to sponsors, athletes, and journalists) to generate greater public awareness of and support for tobacco-free policies at the Olympics and other sports events.

Conclusions: Since sports represent a healthy lifestyle, nonsmoking policies and their widespread dissemination at national and international sports events may help to reduce tobacco use and its adverse health effects on both users and nonusers. Such campaigns may enhance public support for these policies, encourage smokers to quit, and convince young people not to take up this habit.

State Plan Index: Evaluating Progress in Obesity Prevention Using the State Plan Index (RT-11)

Authors: R. Hamre; S. Kuester

Purpose of the Program: Evaluate short- and long-term outcomes of state efforts to prevent obesity.

Setting: As part of CDC's evaluation of the Nutrition, Physical Activity, and Obesity Prevention Program, the State Plan Index was developed and used as an objective measure of state plans.

Interventions: National and state public health practitioners used the State Plan Index to rate 10 nutrition and physical activity plans; states also self-rated. Results allowed an early assessment of CDC's efforts to support state planning for obesity prevention and control. Results were used to guide national planning for technical assistance and training, provide feedback to states, and create a framework for states newly funded to develop plans for obesity prevention.

Outcomes: The evaluation using the State Plan Index provided an objective, science-based approach for measuring short-term outcomes of CDC's Nutrition, Physical Activity, and Obesity Prevention Program. In addition, results were useful in improving program effectiveness and efficiency. In the long term, the State Plan Index will allow CDC to evaluate the relationship of planning to the achievement of health outcomes.

Conclusions: Collaboration among national, state, and academic partners in developing and applying the State Plan Index was important in gaining wide acceptance. The State Plan Index was useful for multiple levels of evaluation as well as in assessing short-term outcomes.

Why Invest in Health Promotion and Disease Prevention?: An Economic Analysis of Cost Savings and Return on Investment (RT-12)

Author: R.Z. Goetzel

Purpose of the Program: For decades, proponents of health promotion programs have struggled to collect and report research evidence documenting the financial impact of these programs. Recently, the evidence supporting a positive return on investment (ROI) has been mounting.

Interventions: Nearly 100 studies conducted over the past 20 years have examined the economics of health promotion. Much of that evidence was recently compiled in a report in the *American Journal of Health Promotion* and in a special report prepared for the Institute of Medicine. These reports helped organize the current evidence regarding the "business case" for health promotion/disease prevention.

Outcomes: For example, at Johnson & Johnson, a 9-year study documented a large reduction in medical care expenditures (about \$225 per employee per year) as a result of the company's health and wellness program. At Citibank, the ROI for Citibank's Health Management Program was estimated to be between \$4.56 and \$4.73 saved per dollar spent.

Conclusions: The presentation will offer evidence supporting the following points:

- A large proportion of the diseases and disorders from which people suffer is preventable.
- Modifiable health risk factors are precursors to many diseases, disorders, and premature death.
- Many modifiable health risks are associated with increased health care costs within a short time window.
- Modifiable health risks can be reduced through effective health promotion programs.
- Improvements in the health risk profile of a population can lead to reductions in health costs.
- Well-designed programs can be cost-beneficial, that is, they can save more money than they cost, thus producing a positive ROI.

Developing a Scientific Road Map for the Elimination of Health Disparities (RT-13)

Authors: C.P. Jones; V.K. Hogan; W.C. Jenkins; and the Disparity Roadmap Workgroup

Purpose of the Program: The second overarching goal of *Healthy People 2010* is the elimination of health disparities. Reaching this goal will require consensus between communities, researchers, funding agencies, program planners, and policy makers on where we stand at present, agreement on where we want to be at some point in the future, and development of a road map to get us from here to there. We describe the first phase in the development of a scientific road map to guide the elimination of health disparities in Jackson, Mississippi.

Setting: A concept mapping process was first implemented among scientists and policy makers from the Centers for Disease Control and Prevention (CDC) and neighboring academic and health institutions. This process was then replicated among a broad cross-section of stakeholders from the Jackson community following a series of community dialogue sessions.

Interventions: Using a Web-based interface, participants contributing to both road maps were asked to brainstorm as many ideas as they wished to complete the open-ended statement, "A specific thing (action, condition, event, circumstance) that causes African-Americans to get sicker and die sooner than other groups of people is ...". A subset of participants was then asked to sort these ideas and rank them on both importance and feasibility for change.

Outcomes: The CDC concept map identifies social factors as the most important contributors to health disparities, but health care and behavioral factors as most feasible to change. The Jackson concept map offers a complementary perspective.

Conclusions: The concept maps generated by the two independent processes will be the focus of upcoming structured scientific meetings and facilitated strategic planning. A national observer/advisory group is providing technical support for and learning from the process.

Community-Designed Health Promotion Program for Small Businesses (RT-14)

Authors: M. Dunnahoo; E. Graham; R. Lara; A. Lierly; C. Morin; T. Rivera-White; T. Uyeki

Purpose of the Program: To promote consistent physical activity through a worksite competition for employees and businesses.

Setting: "Coming Alive" is a fitness program for small work sites in a rural 5-county area that is 41% Hispanic and has an agricultural economy. During the past 10 years, 55 businesses with from 2 to 300 employees have participated in the program. Since 2001, a community collaborative designed, implemented, and evaluated the program.

Interventions: Participants logged daily activity minutes for 12 weeks. Businesses recorded any health promotion policy or events (seminars, posters, activities) to win points for the "Business Fitness Award." The program included newsletters, group activities, and prizes.

Outcomes: Outcomes were similar for both years. The following results were reported for 2003: 45% of participants did regular exercise, 25% did some exercise, 25% did light exercise, 6% did not exercise, and 90% completed the program. At the end of the program, all respondents were exercising, 58% were exercising regularly, and 46% reported increased physical activity. The average number of minutes that employees exercised per week ranged from 105 to 270. In addition, 67% of participants were confident they would continue to exercise, 37% indicated that family members exercise more now as a result of the participants' involvement in the program, and participants' feeling of well-being increased. Ninety-six percent would participate in the program again. There was a weak correlation between policy points and average number of minutes exercised per work site.

Conclusions: Small businesses are a good location to have work site health promotion programs because they are well received and increase participants' level of activity. Community groups can successfully manage their own effective health promotion programs.

Cost-Effective Strategies for a Healthy Workplace: The Maine Cardiovascular Health Program Work Site Pilot Project (RT-15)

Authors: A.A. Spaulding; D.A. Wigand; C.R. Coles

Purpose of the Program: To develop an inventory of policy and environmental strategies for creating work environments that support healthy lifestyles.

Setting: The Maine Cardiovascular Health Program's Work site Pilot Project provided technical assistance and funding to over 40 Maine employers to develop policy and environmental changes that lead to supportive work environments. A work site advisory board guided the protocol design and the implementation and evaluation of the project. This board includes experts in work site health promotion, benefits, and safety/loss prevention, as well as state health officials and public health agencies.

Interventions: The project protocol started with an assessment of organizational needs, employee interests and behaviors, and leadership support. Employee wellness teams used this information to develop work plans, initiate policies and environmental supports, and evaluate the changes made. The project focused on strategies to address behavioral risk factors, specifically physical inactivity, tobacco use, and poor nutrition.

Outcomes: Case studies have been developed to describe the strategies used, the process for making changes, the time and monetary costs, and the outcomes in terms of employee behaviors and employer benefit.

Conclusions: The Work Site Pilot Project included manufacturers, municipal governments, retailers, school districts, and universities in its effort to demonstrate that policy and environmental strategies are effective in supporting employee health.

Developing a Multicultural Coalition: Lessons Learned in East Hartford, Connecticut (RT-16)

Authors: B. Salsbury; A. Case; K. Mattias; S. Congdon

Purpose of the Program: To institute a multicultural coalition comprising important community stakeholders to implement obesity prevention and chronic disease risk reduction interventions.

Setting: A collaborative between the Connecticut Department of Public Health and the East Hartford Department of Health and Social Services was established to develop a community-based action plan to address obesity prevention. East Hartford is a small city with a population of 50,000 residents.

Interventions: East Hartford Health and Social Services staff, working with key town departments and other members of the community, conducted a community assessment using a tool designed to assist in identifying physical and environmental resources. This information, coupled with findings from focus groups conducted with adults and children, "sidewalk surveys," and a community forum, was used to develop an Action Plan to implement community-based interventions related to nutrition and physical activity. The State Health Department facilitated linkages with agencies focused on health strategies among minority populations.

Outcomes: To help ensure the success of action plan interventions, a multicultural health coalition was instituted in East Hartford. The group serves as an advisory arm of the obesity pilot project and provides leadership and direction, including prioritizing interventions based on cultural norms, and developing and implementing culturally competent interventions.

Conclusions: State and local support for multicultural interventions was instrumental in facilitating successful development of community-based obesity prevention efforts.

diabetesatwork.org, A Resource for the Business Community to Address Diabetes in the Working Population (RT-17)

Authors: P. Allweiss; J. Kelly; J. Gallavan; L. Agin

Purpose of the Program: To provide a resource for the business community to educate and support employees with diabetes, increase awareness of the clinical and economic benefits of quality diabetes care among employers, benefits managers, and managed care decision makers, and to promote the prevention of diabetes through work site interventions.

Setting: The Business and Managed Care Workgroup (BMC), part of the National Diabetes Education Program, (a joint project of CDC and the National Institutes of Health) is a public and private partnership of occupational health professionals, large and small employers, unions, managed care groups, and state diabetes prevention control program (DPCP) officers.

Interventions: Focus group research indicated that content areas for the current BMC projects include three components. 1) "Making a Difference: The Business Community Takes on Diabetes" (1999) for business decision makers, summarizing the economic and health/wellness issues associated with diabetes care of employees for employers, providing a rationale for implementing diabetes-related health promotion actions. 2) www.diabetesatwork.org, a free user-friendly online resource that includes diabetes education materials, an assessment tool, how to select a "diabetes-friendly" health plan, and a Spanish language section to meet the needs of the Hispanic business community (in progress). 3) Diabetesatwork.org workshops and toolkits for state DPCP officers so they can conduct their own version of the diabetesatwork.org workshops, helping to build the business case for preventing and managing diabetes at the work site.

Outcomes: Web site hits, requests for more information, workshop evaluations that assess if the attendees have come away with tools to either create a work site wellness program or analyze their company's current work site wellness program, and new partnerships formed after exposure to the Web site.

Conclusions: The diabetesatwork.org program provides a unique resource for businesses to assess the potential impact of diabetes and to

make constructive interventions to decrease the burden of diabetes and eventually to help prevent diabetes using the Diabetes Prevention Trial data.

Disparities in Hospital Emergency Department Usage: Implications for Management of Asthma (RT-18)

Authors: C. Larson; R. Belue; T. Gebretsadik; T. Jobe

Objective: The purpose of the present study was to analyze emergency department administrative records to identify usage, classify level of care needed, and identify any disparities based on race/ethnicity.

Setting: Six hospitals located in a mid-south urban community collectively provided 244,000 emergency department administrative records representing patient visits from June 2000 to July 2001.

Method: Primary discharge ICD-9 code 493 was used to calculate asthma rates overall and by race. An additional analysis was conducted to determine level of care needed at each patient visit: a) non-emergent, b) emergent care needed that was preventable or avoidable, c) emergent care needed that was primary care treatable; and d) emergent care needed that was not preventable or avoidable (Billings, 2000).

Result: The results demonstrated that the overall rate of emergency department usage for asthma care was fairly low but that blacks used emergency departments for asthma care substantially more than whites (3.55 vs .87 per 1000, respectively, unadjusted for age). All presenting cases were classified as emergent care that was needed but preventable or avoidable in addition to being primary care treatable. The results further demonstrated that for both races approximately 12% of individuals presenting for care reported not having health insurance.

These results suggest that emphasis should be placed on increasing patient education in asthma self-management and improving quality of care based on provider and patient adherence to standard treatment guidelines. Further implications underscore the need for assuring uninsured individuals have access to "safety net" medical providers.

Environmental Change to Promote Healthy Lifestyles: Perceived Efficacy and Willingness Among WISEWOMAN Participants (RT-19)

Authors: A.S. Ammerman; S.B. Jilcott; C.D. Samuel-Hodge; T.C. Keyserling; D.A. DeWalt; B.A. Garcia; A.S. Cole; N. Aycock; L. Johnston; S.C. Lindsley; K.P. Bramble; A. Mainor; G. Duncan; E. Hooten

Objective: To determine the perceived efficacy and willingness of low-income women to participate in environmental change to improve health.

Setting: Change to increase environmental supports for a healthy diet and physical activity (PA) is cited as critical to health promotion, but little is known about the degree to which low-income women can be involved.

Method: WISEWOMAN participants (n=163) served by an urban community health center completed a survey about 1) the degree to which they currently make use of "what the community has to offer" regarding PA and a healthy diet; 2) perceived efficacy and willingness to participate in improving the community environment through social action.

Result: A total of 31% reported making use of "a great deal" of what the community offers regarding healthy diet, and 4% stated the same for PA. Many reported knowing very little about how to "get started" regarding having sidewalks fixed (49%), starting a farmer's market (66%), getting the high school to open their gym (41%), or getting the city to build a walking trail (55%). However, many expressed a willingness to sign a petition (81%) or go with others to visit a city official (64%), and 29% would speak at a city council meeting. Education level was associated with a willingness to speak at a city council meeting (<HS 19%, HS+ 33%, $P=.06$) but was unrelated to other types of involvement.

Conclusion: Interventions are needed to help low income women access existing community resources and "get started" with efforts to influence environmental change. Many are willing to take part in community action and some would take a leadership role.

Evaluating the Activity Friendliness of Communities: A Comparison of Neighborhoods Using Objective and Perceived Measures (RT-20)

Authors: L.K. Brennan; C.M. Hoehner; M.E. Elliott; R.C. Brownson

Objective: To determine which features of the street-level environment most influence transportation and recreation activity patterns.

Setting: High and low income study areas were selected among census tracts in St. Louis, Missouri (representing a "low-walkable" city) and Savannah, Georgia (representing a "high-walkable" city).

Method: The study involved the use of state-of-the-art methods to assess residents' physical activity behavior and attributes of the neighborhood environment. Using a cross-sectional study design, this study compared the relationships of "objective" (derived by community audits) and "perceived" (derived by telephone survey) neighborhood characteristics and physical activity.

Result: Physical activity patterns were analyzed as continuous and dichotomous variables (meeting or not meeting public health recommendations) derived from MET—minutes/week spent on self-reported recreational and transportation activity. A total of 1,073 individuals participated in the telephone survey (response rate = 57%), and 1,164 street segments were observed across 4.5 square miles as part of an environmental audit. Bivariate and multivariate associations were assessed between relevant "objective" and "perceived" neighborhood environment variables and transportation and recreational activity.

Conclusion: Most studies from the fields of urban planning, transportation and public health that have shown an association between community environmental factors and residents' physical activity levels have focused on community-scale features (e.g., population density or land use mix); however, the results of this study suggest that street-scale characteristics (e.g., quality of sidewalks, destinations, or social disorder) also influence the activity patterns of residents.

Healthy Maine Partnerships Evaluation: Measuring the Effects and Impact of the 31 Community/ School-Based Health Promotion Intervention Sites in Maine (RT-21)

Authors: P. Hart; H. Fishbein; P. Robinson;
M. Welton; D. Wigand

Purpose of the Program: Recognizing the value of an integrated approach to leverage limited resources and improve outcomes in chronic disease prevention, the Maine Bureau of Health (BOH) created the Healthy Maine Partnership (HMP) initiative as a formal partnership of state and local health promotion programs.

Setting: The HMP includes four state-level programs that, in partnership with the Department of Education, collaboratively support 31 local intervention sites that are addressing tobacco control, cardiovascular health, community health, and school health. In both state and local programs, the health promotion approach is to create a coalition of stakeholders focused on creating healthier lifestyles through policy and environmental change.

Interventions: The Maine Bureau of Health has contracted with The Gallup Organization to measure the impact and the progress of the state's comprehensive program. Key to this evaluation is the progress being made at the 31 local intervention sites to create policy and environmental changes. Gallup's senior evaluators and the Maine Bureau of Health's senior program manager will present the data that have been collected and analyzed and show the progress at the 31 local intervention sites over the last few years.

Outcomes: The evaluation findings measure the local capacity for health promotion, articulate strategies, and identify the outcomes of policy and environmental changes to support healthier lifestyles.

Conclusions: The report is a summary of data from the 31 local intervention sites and the experiences and results of program participants during the first 2 grant years from January 2001 to December 2002. The data include information from quarterly and year-end reports as well as a compilation of data from the Web-based monitoring system created by the Maine Bureau of Health.

Innovative Nutrition and Physical Activity for African American Adolescents (RT-22)

Authors: A. Hinkle; D. Boykin; A. Carr; R. Moeti;
J.F. Wilson; G. Howell

Purpose of the Program: To develop effective, culturally competent models for improving nutrition and increasing physical activity for adolescents in African American communities.

Setting: The California Adolescent Nutrition and Fitness Program (a private nonprofit organization) worked with after-school organizations in California, as well as in collaboration with CDC, the 100 Black Men of America, Inc. (a voluntary association), and the Department of Agriculture's Food and Nutrition Service.

Interventions: After extensive formative research (i.e., a literature review, key informant interviews, youth focus groups, and community environment surveys), a curriculum for 11- to 18-year-old young men involved in mentoring programs was developed, and a separate hip-hop educational campaign was implemented.

Outcomes: An evaluation study found that 87% of the young people involved in the pilot study gained new knowledge from the curriculum, and 100% of the pilot sites incorporated new nutrition and fitness practices into their program. The curriculum has been adopted by the national office of 100 Black Men of America, Inc. for implementation in all of its chapters nationwide. A video was created from the hip-hop campaign. This video is currently being used as a vehicle for increasing physical activity opportunities at home and in after-school programs.

Conclusions: Three separate African American-specific resource tools have been developed to provide nutrition and physical activity programs in various settings: homes, after-school programs for adolescents, and community-based organizations.

Powerful Partnership on Weight Loss: Health Plan and Work Site Health Promotion (RT-23)

Authors: K. Paras; N. Neff; K. Miller

Purpose of the Program: Using three approaches, we will attempt to promote weight loss among state employees and spouses of state employees with BMIs above 35 and then determine the effectiveness of this pilot program.

Setting: Employee Work Site Wellness.

Interventions: A risk group of 200 state employees selected from a telephone interest survey conducted by the Public Employees Health Program (PEHP) will be invited to participate. The pilot program will begin with a “kickoff” seminar consisting of various presentations on weight loss resources by community and medical representatives. On the basis of participation criteria and BMI level, members choosing to enter the program will be assigned to one of the three approaches. Those with BMIs in the 35–39 range will be offered nutrition and physical activity classes and individual counseling through Healthy Utah and community resources; those with BMIs in the 40–49 range will be referred to a contracted weight loss specialist for individual counseling; and those with BMIs over 50 will be referred to a PEHP case manager for possible medical intervention. Cash incentives will be provided to participants who meet goals.

Outcomes: Program planning is in progress, and implementation is planned for November 2003. Initial results will be reported at the conference.

Conclusions: There is considerable interest in and a significant need to offer an additional weight loss benefit to subscribers with high BMIs. This program will serve as a resource to overweight members and potentially benefit the insurance provider by reducing the number and amount of medical claims for overweight-related conditions.

Profitability of Nutritious Choices in School Vending Machines (RT-24)

Authors: R.J. Cox; J.L. Ware; K.A. Coats

Objective: To examine vending machine choices in Utah schools and determine the profitability of selling nutrient-dense snack items in vending machines.

Setting: A recommended action from *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity 2001* states, “Ensure that healthy snacks and foods are provided in vending machines, school stores, and other venues within the school's control.”

Method: A survey was conducted prior to implementing a nutrient-dense snack machine pilot. The survey included 25 elementary schools (5%), and 147 secondary schools (60%). Survey questions involved machine location, type, and accessibility, as well as the number and type of items sold. The pilot involved three metropolitan middle schools. Sales data were collected from vending machines carrying both low- and high-nutrient snacks for 3 months.

Result: Survey data showed that for every healthy vending item choice there were 14 unhealthy choices. For every milk choice there were 45 soda choices. Pilot sales data indicated that nutrient-dense snacks made a profit in all three middle schools. The profit for each vending machine containing high-nutrient snacks exceeded the average profit for all vending machines containing low-nutrient snacks in each of the three schools.

Conclusion: Survey data indicated that healthy choices were lacking but that a profit could be made from offering nutrient-dense vended items.

School Policies to Prevent Chronic Disease: Getting from Policy to Practice (RT-25)

Authors: J.A. Pritzl; M.L. McKenna; J. Epping

Purpose of the Program: To improve the implementation and enforcement of school health policies.

Setting: Tobacco use, poor dietary patterns, and physical inactivity are the three major behavioral risk factors for heart disease, cancer, and stroke. These behaviors are established early in life and respond to early intervention. CDC's Division of Adolescent and School Health has developed guidance for schools to assist in the prevention of tobacco use and the promotion of physical activity and healthy eating. School health policy is a primary focus of this guidance.

Interventions: While CDC guidance documents can elaborate desired prevention policies, these policies will be ineffective if not implemented properly by school personnel. CDC staff provide technical assistance to help school personnel deal with the challenges of implementing and maintaining policies designed to prevent chronic disease.

Outcomes: CDC staff and participants will share their experiences with barriers to policy implementation and solutions that have been effective for others.

Conclusions: Although those attempting to implement school policies designed to prevent chronic disease may face challenges, these challenges can be anticipated and overcome.

Texas Heart-Healthy/Stroke-Free City Program (RT-26)

Author: J.G. Smith

Purpose of the Program: Encourage Texas cities to have policy and environmental change indicators in place that support a heart-healthy/stroke-free environment and recognize those that do.

Setting: Statewide assessment of major metropolitan cities.

Interventions: The Texas Council on Cardiovascular Disease and Stroke, supported by the Texas Department of Health, and in collaboration with the American Heart Association, Texas Affiliate, reviewed 65 policy and environmental change indicators that promote heart and brain health for work sites, schools, communities, and health care settings. Ten indicators were identified as the most crucial for promoting a heart-healthy/stroke-free environment. Indicators included preprimary, primary, and secondary prevention interventions, and addressed physical activity, nutrition, tobacco use, and emergency response. Major metropolitan cities were selected for assessment the first year and given an assessment score representing the percentage of indicators currently in place.

Outcomes: One city has received an assessment score of 50%. By December 2003, six Texas major metropolitan cities will be assessed and provided an assessment score. Results will be released to local health departments, as well as state and local media outlets.

Conclusions: Using a specific set of indicators to assess the environment of cities for heart and brain health will determine a current status of the environment, make city officials and the public aware of the strengths and weaknesses in their community system, and offer a tool to address areas for improvement.

Urban Sprawl and Chronic Medical Problems (RT-27)

Authors: D.A. Cohen; R. Sturm

Objective: To study the association between objective measures of urban sprawl and chronic medical conditions and mental health disorders.

Setting: Despite numerous claims in public debates, little empirical data exists on how urban sprawl affects health.

Method: Using data from 8,686 respondents in 38 metropolitan survey areas, we assessed whether chronic medical conditions, mental health disorders, and health-related quality of life were associated with four dimensions of sprawl (residential density, land use mix, strength of a center, street design). Control variables included age, race, gender, education, income, marital status, family size, and employment. We also controlled for average precipitation and temperature.

Result: The overall sprawl index was associated with chronic medical conditions ($P < 0.01$) and health-related quality of life ($P < 0.05$) but not with mental health or psychological well-being. A 50-point increase in sprawl was associated with 96 more chronic medical problems per 1000 residents. A 50-point increase in sprawl corresponded to a 0.34 point decline in health-related quality of life, similar to 3 years of premature aging. This suggests that persons living in high sprawl areas like Atlanta would, on average, age 6 years more rapidly than persons living in cities with less sprawl, like Providence, Rhode Island, which has a sprawl score 100 points lower.

Conclusion: Urban sprawl may have adverse effects on residents' physical health that will increase the need for services. However, we did not find sprawl to have adverse effects on residents' mental health.

Using the Results of a Participatory Evaluation Project: The Experience of CDC's Prevention Research Centers (RT-28)

Authors: L.A. Anderson; R. Brownson; A. Cross; R. Goodman; R. Mack; D. McLinden; J. Scherer; R. Schwartz; D. Sundra; T. Sims; A. Warsofsky; C. White

Purpose of the Program: To describe how results from a participatory evaluation project (Project DEFINE [Developing an Evaluation Framework: Insuring National Excellence]) were used to support the Prevention Research Centers (PRC) program.

Setting: The PRC program is a national public health initiative designed to strengthen science for public health action. Project DEFINE, a 2-year participatory process based on CDC's Framework for Program Evaluation in Public Health, resulted in the development of a national PRC program logic model, a set of performance indicators, and evaluation goals.

Interventions: Results from Project DEFINE were used for additional programmatic activities, including the development of a Web-based information system, a program announcement for a new funding cycle, and an outline of a 5-year evaluation plan. The manner in which these activities were accomplished will be described in this presentation, as will the importance of the participatory process of Project DEFINE in garnering stakeholder support for these activities.

Outcomes: The performance indicators were operationalized and incorporated into a new Web-based information system to aid in program accountability and information sharing. The logic model was used in program planning to structure the program announcement for the next 5-year funding cycle. The logic model, performance indicators, and evaluation goals guided the development of a 5-year plan for evaluating and monitoring the impact of the PRC program. The simultaneous development of the evaluation planning process, the information system, and the program announcement ensured consistency across these activities.

Conclusions: Using the results from Project DEFINE was an effective strategy for addressing PRC program planning, monitoring, and evaluation needs. The participatory process allowed a diverse group of partners to share their perspectives on and expectations for programmatic activities.

Active for Life: An Innovative Work Site Physical Activity Program (RT-29)

Authors: J.L. Kulzer; A. Pelligrini; J.R. Harris

Purpose of the Program: To conduct a Web-based work site exercise program to increase physical activity among adults.

Setting: In partnership with Northwest businesses, the American Cancer Society (ACS) Northwest Division implemented Active for Life in 20 businesses over the last 2 years. The businesses range in size from 30 to 44,000 employees, with a median of 200 employees. This analysis focuses on one large employer, Alaska Airlines (12,000 employees).

Interventions: Active for Life is a 10-week work site physical activity program based on the Stages of Change theory. It's a team and incentive-based system involving realistic goal setting. Motivated team captains provide information and support. Web technology is used to collect survey data, communicate, and provide participants with feedback and information. Participants choose activities they enjoy, earn points for each minute of moderate activity, and attend education sessions. An Active for Life program manual guides businesses through implementation.

Outcomes: Active for Life was targeted at all 12,000 Alaska Airlines employees in 80 sites. Eleven percent (1,300) of employees enrolled in the program, and preliminary follow-up results from 87 participants revealed that 48% moved at least one stage of change step toward being more physically active.

Conclusions: This motivational approach is a promising tool to increase physical activity and overall health among adults in the workforce.

King County (WA) Healthy Aging Partnership: Informing and Educating Older Adults (RT-30)

Authors: N.S. Solehdin; C.W. Collier; H.W. Meischke; S.J. Schwartz

Purpose of the Program: To promote senior health through access to a senior information and assistance (I&A) service.

Setting: The Healthy Aging Partnership (HAP), a coalition of 35 health care and social service organizations, promotes healthy aging through sponsorship of a walking program; social marketing of health promotion messages; staff training; and a public awareness campaign to promote an existing I&A service.

Interventions: HAP promoted a new I&A number, 1-888-4ELDERS, through various media outlets. A random survey of King County, Washington, residents aged 60 and older was conducted to assess awareness of the new number and identify effective ways to inform older adults about services.

Outcomes: The survey reached 190 people, 95% of whom were not aware of 1-888-4ELDERS. The 5% who knew about it were informed through a senior center and radio ads. Among those who were not aware, 61% reported that an I&A phone line would be helpful. Respondents reported newspaper as the best way to learn about services. The majority of respondents (56%) reported no Internet use; those who used the Internet were more likely to be younger, male, have higher annual incomes, and have higher educational levels. There were 1,142 calls to 1-888-4ELDERS during its first 6 months. During the most recent 6-month period, there were 2,826 calls, showing a 250% increase since its inception in June 2000.

Conclusions: While most King County older adults were not aware of 1-888-4ELDERS, the increase in calls illustrates that promotional efforts have been successful. Tailored educational efforts should be made to reach a diverse older adult population.

Physical Activity Barriers for Older Adults in a Bi-Ethnic, Rural Setting (RT-31)

Authors: J.I. McLean; L.L. Bryant

Objective: To examine physical activity barriers for older adults in a rural, bi-ethnic setting to inform intervention development.

Setting: The San Luis Valley of Colorado, a rural, 6-county, 8,194-square-mile area with a population of 46,190, of whom 46.5% are Hispanic and 12.8% are aged 65 or older.

Method: Qualitative and quantitative methods were used and included three data sources: six focus groups with 90 older adults, the annual Behavioral Risk Factor Surveillance System-based Alamosa County Survey, and a Healthy Aging Research Network (HAN) survey of physical activity programs.

Result: The HAN Survey found that 30 organizations offer physical activity programs to more than 2,700 older adults in the region. The other data sources found that physical activity barriers include intrapersonal, interpersonal, and environmental factors. Intrapersonal barriers include health status; chronic health conditions; and lack of education, self-motivation, and financial resources. Interpersonal barriers include the needs and expectations of loved ones and lack of social support. Environmental barriers include lack of transportation, safety concerns, inclement weather, lack of or location of facilities, and the "walkability" of neighborhoods.

Conclusion: Resources exist, but barriers discourage participation in physical activity. Transportation should be addressed, and a low-resource intervention with active and motivational components could be implemented.

Qualitative Study of Tailored Health Communication Materials (RT-32)

Authors: A. Smith; C.M. Loftland; J.T. Davis; K.J. Leonard; G. Wurzburg; D. Lui; E. Bolinger

Objective: To present the qualitative results of a pilot study of health education materials designed to educate and raise awareness in men and their significant referents about depression, its symptoms, and treatments.

Setting: A video, a companion resource guide, and a Web module were developed to increase knowledge about men and depression, reduce stigma about depressed men, and encourage depressed men to seek treatment. The goals of the study were to evaluate materials designed to reduce stigma associated with depression and to encourage its perception as a treatable illness; promote awareness about symptoms of depression among men and their significant referents; encourage men to discuss depression with their primary care providers; and educate men and their significant referents about treatment for depression.

Method: Six focus groups, N=60, were conducted to evaluate a video and companion booklet, and a Web module for men with depression. Two focus groups included depressed men, three groups included significant referents, and one group included health care professionals.

Result: Analysis of focus group data revealed that all groups felt the materials were beneficial and that the messages were clear. The depressed men wanted more attention given to sexual dysfunction, medication, and alternative therapies on the Web site. The health care professionals needed more extensive discussion of suicide. The significant referents wanted more extensive discussions of signs and symptoms of depression.

Conclusion: These evaluation findings will be used to improve the current educational materials for men and depression and to guide the development of future media approaches for health communication models.

Using CDCynergy: A Tool to Strategically Plan and Evaluate Health Communication Interventions (RT-33)

Author: K.M. Unzicker

Purpose of the Program: The CDCynergy workshop facilitates navigation and optimum use of the many resources this tool has to help users plan and evaluate communication campaigns. The training is highly interactive and presented in a multi-media format that is both educational and engaging.

Setting: This workshop provides computer-mediated training on CDCynergy—an innovative CD-ROM that is intended to systematically train professionals in designing health interventions within a public health framework. CDCynergy provides real-life case examples from national and local communication campaigns, reference materials, consultants' feedback, extensive tools for research, a diverse media library, and a cumulative evaluation plan.

Interventions: CDCynergy 3.0, the most recent basic edition, is currently being used in training and implementation efforts throughout the nation to meet the diverse needs of health professionals.

Outcomes: At the conclusion of the course, participants will understand the planning and evaluation framework for communication in public health interventions. They will also be able to apply their knowledge in planning to specific tasks such as building good partnerships and collaborations, implementing cost-effective strategies and assessing project budgets, using important data and background information, developing culturally sensitive procedures and materials, and coordinating and communicating effective messages to the intended audiences as well as the planning team.

Community-Integrated, Home-Based Depression Treatment in the Elderly: A Randomized Controlled Trial (RT-34)

Authors: P.S. Ciechanowski; E.H. Wagner; K.B. Schmalting; S.J. Schwartz; J.L. Kulzer; B.L. Williams; S.L. Gray; C.W. Collier; P. Diehr; J.P. Logerfo

Objective: To test the effectiveness of a home-based program of detecting and managing depression, known as PEARLS (Program to Encourage Active, Rewarding Lives for Seniors).

Setting: A collaboration between Aging and Disability Services, Senior Services, and the Health Promotion Research Center at the University of Washington.

Method: We randomly assigned 138 people aged 60 years or older with minor depression or dysthymia to the PEARLS intervention or usual care over 12 months. Seventy-two patients received an intervention consisting of problem-solving therapy, social and physical activation, and potential recommendations to patients' providers regarding antidepressant medications. We assessed depression, quality of life, and health care utilization at baseline, 6 months, and 12 months.

Result: The sample was clinically and psychosocially diverse: 72% lived alone, 58% had an income <\$10,000, and 42% belonged to an ethnic minority. Patients had a mean of 4.6 ± 2.1 chronic medical conditions. At 12 months, compared to usual care, patients receiving the PEARLS intervention were more likely to have a 50% reduction in depressive symptoms [43% vs. 15%; OR = 4.8 (2.0, 20.4)], to achieve complete remission from depression [36% vs. 12%; OR = 5.0 (1.9, 13.2)], to have greater improvements in functional well-being [range 0-4; between group difference, 0.21; $P < .05$], and were less likely to have had any hospitalizations in the previous 12 months [36% vs. 50%; OR = .44; (.20, .97)].

Conclusion: The PEARLS program was effective in significantly reducing depressive symptoms in chronically ill elderly patients with minor depression and dysthymia.

Disparities in the Cost of Diabetes: The Louisiana Hospital Inpatient Discharge Database Experience (RT-35)

Author: P.L. Rose

Objective: To describe disparities in the cost of hospitalizations for adult diabetics in Louisiana with the use of comprehensive statewide data collected through the Louisiana Hospital Inpatient Discharge Database System.

Setting: Although the prevalence rate of diabetes among adults in Louisiana (7.1%) is similar to that among all U.S adults (6.7%), the frequency and costs of hospitalizations vary substantially between black and white adult diabetics in Louisiana.

Method: The Louisiana Hospital Inpatient Discharge Database collects discharge data from 146 of the 197 hospitals in Louisiana, and these 146 hospitals account for 86% of the hospital beds in the state. We used data from 2001 to estimate the total number of hospital admissions for adults with diabetes, as well as the average hospital costs and the average length of hospital stay for diabetic patients. The database also includes data on demographics, co-morbidities, and number of amputations among diabetic patients.

Result: In 2001, there were nearly 7,700 hospital admissions for adults with diabetes, and the total cost of adult diabetes-related hospitalizations was approximately \$105M. The estimated cost of hospitalization per total number of diabetics was nearly twice as high for black diabetics as for white diabetics (\$565 vs. \$296). Black females had the highest average cost per diabetic (\$644), while white males had the lowest (\$272). Hospitalized black females also had the highest cost per hospital discharge (\$16,500), while the corresponding cost for white females was only \$14,100.

Conclusion: Disparities between black and white diabetics in Louisiana are evident in the total cost of adult hospitalization, the cost of hospitalization per diabetic, and the cost per discharge.

Implementing Prevention Programs in Public Housing Developments (RT-36)

Authors: L. Strunin; G. Douglas; A. Alpert; K. Bennett; R. Goodman; M. Douyon; K. Anderson

Purpose of the Program: To plan and implement health prevention programs for residents of Boston public housing developments through a partnership among a university, the public housing authority, and the city health department.

Setting: Boston public housing developments.

Interventions: The GirlStars Program provides a program of regular, organized, physical exercise in conjunction with health education/discussion for adolescent girls, aged 9–13 years, who live in Boston public housing developments. The Waging Peace pilot project developed a health, wellness, and safety program for women to become Family Health Ambassadors. The Resident Health Advocate Training Program educates current and future community leaders among residents of public housing about ways to improve their own health and provide information and referral resources to the developments' residents.

Outcomes: The GirlStars Program meets twice a week at two housing developments for physical activity and health education discussions. The Waging Peace project provided 12 hours of training in family violence prevention to women from five housing developments who became Family Health Ambassadors for Waging Peace. The Resident Health Advocate Training Program provided 32 hours of health education training for residents from eight Boston public housing developments to become Resident Health Advocates (RHAs).

Conclusions: Programs indicate that intervention programs can be implemented in public housing developments when there is a partnership of efforts. Challenges include addressing both mutual and conflicting priorities.

Mississippi: A State Medicaid Disease Management Program for the Country's Most Ill Citizens (RT-37)

Author: A. Crowder

Purpose of the Program: To promote self-management of asthma, diabetes, and high-risk hypertension in more than 60,000 Medicaid beneficiaries throughout the state.

Setting: Mississippi has some of the highest incidences of and death rates from chronic illnesses in the United States. Of the 50 states, Mississippi has the 2nd highest diabetes prevalence for all races/ages, both sexes (2000, most recent data) and the 1st–4th highest number of deaths from cardiovascular disease for black and white men and women aged 35–74. Additionally, the number of Mississippi adults with diabetes continues to grow, to 9.3% in 2001 from 7.6% in 2000.

Interventions: Mississippi's disease management (DM) program serves 25,000 people with asthma, 13,000 with diabetes, and 20,000 with hypertension.

Registered nurses administer the program by telephone and in the beneficiary's home as community-based contributors.

Nurses provide disease-related educational information and 24/7 nurse triage; optional home delivery of discounted pharmaceuticals and medical supplies is available. Partnerships with nonprofit health entities promote and generate program acceptance among beneficiaries throughout the state.

Outcomes: Anecdotal evidence suggests that the program is meeting its goals of improving health status and quality of life, reducing or delaying chronic disease complications, and controlling health care costs associated with complications.

The 3-year contract began in April 2003; statistical outcomes will be available in April 2004.

Conclusions: Beneficiaries with severe chronic illness will take an active role in improving their health when engaged person-to-person through a DM program.

The Cumulative Impact of Poverty and Abuse: A Population Base for Primary Prevention (RT-38)

Author: S.M. Rose

Purpose of the Program: Preventing chronic disease requires understanding its antecedents. Two theory-driven empirical research paradigms have emerged to shape the debate about requisite understanding for primary prevention. One school focuses on exposure to pervasive material disadvantage and income inequality (see Lynch, Kaplan, and Shema, 1997; New England J of Medicine. Cumulative impact of sustained economic hardship on physical, cognitive, psychological, and social functioning. 337:26). The other offers a different view: that chronic illness in adulthood occurs as a result of extensive exposure to different categories of adverse childhood experiences (see, for example, Felitti, Anda, Nordenberg, et al. 1998. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The ACE Study. American J of Preventive Medicine. 14:4).

Interventions: We will review and appraise these conceptual models and attempt to integrate them into a unified conceptual scheme.

Outcomes: Exposure to adverse childhood experience, unequally distributed across socioeconomic groups, interacts with exposure to material disadvantage. The cumulative impact occurs across the life course and has measurable biomedical impact (e.g., see discussion of "allostatic load"). Heightened vulnerability to chronic disease is the outcome.

Conclusions: Health policy targeting chronic disease prevention must include both income distribution and child protection within its focus.

Wellness Within REACH: Mind, Body, and Soul (RT-39)

Author: C. McKeever

Purpose of the Program: Wellness Within REACH (WWR) aims to saturate the N/NE area of Portland with a diversity of free physical activity opportunities for African Americans. The goals of WWR are to increase the number of people leading active lifestyles and to raise the overall level of physical activity within the community.

Setting: Certified instructors conduct exercise classes at community venues.

Interventions: WWR collaborates with community centers and churches to offer the African American community in Portland access to free, culturally appropriate physical activity classes. To evaluate the program, we administer a brief questionnaire to participants attending exercise classes. These questionnaires assess participants' frequency of attendance and attitudes about exercise and fitness goals. Data are collected from each class quarterly.

Outcomes: Over 500 unique individuals have attended the WWR exercise classes. In a sample of participants, 22% were overweight or obese, 36% had high cholesterol, and 36% had high blood pressure. WWR participants are exercising an average of 3 times per week, and 76% reported that they exercise more now than in the 6 months prior. There has been a steady increase in attendance, probably because the classes are both advertised and recommended by word of mouth.

Conclusions: The classes are centered around the culture of the community in which they are located and have become a family gathering space for those attempting to lead active lives, as the program as a whole has become a "movement."

A Community Health Worker Curriculum to Prevent Disparities in Heart Disease and Stroke (RT-40)

Authors: J.N. Brownstein; C. Cornell

Purpose of the Program: To provide a training curriculum for community health workers (CHWs) based on current guidelines and primary and secondary prevention research findings and that covers relevant topics in a culturally appropriate and easily adapted manner.

Setting: The curriculum resulted from partnering efforts of the Cardiovascular Health Branch of CDC, and University of Alabama (UAB) Prevention Center and INMED.

Interventions: Steps included updating INMED materials, adding secondary prevention information, obtaining CHW feedback, pilot testing with CHWs, and making revisions. African American CHWs, experienced in conducting cardiovascular disease lifestyle interventions, were trained by UAB staff and conducted prevention counseling of 152 patients in a rural health clinic. Evaluation results of the training process and pilot intervention were used to finalize the curriculum.

Outcomes: Training contents include an overview of heart disease and stroke; action plans for heart attack, congestive heart failure, and stroke; high blood pressure; cholesterol; diabetes; guidelines for taking heart and stroke medications; communicating with health care providers; and the role of CHWs in supporting healthy lifestyles.

Conclusions: A CHW curriculum that can be used by community organizations to reach low socioeconomic status, racial/ethnic populations at high risk for heart disease and stroke with emphasis on adequate secondary prevention information.

Community-Based Efforts to Increase Screening and Brief Intervention for Substance Use Disorders (RT-41)

Authors: *E.M. Edwards on behalf of Demand Treatment*

Purpose of the Program: Increase screening and brief intervention for substance use disorders to prevent injuries, accidents, and comorbid chronic health problems.

Setting: Communities nationwide (including Denver, Chicago, San Francisco, and Pittsburgh) are implementing screening and brief intervention programs in hospitals, office-based physician practices, public health clinics, and service organizations.

Interventions: Projects chose different screening tools and deployment strategies based on setting and community. Presentation will describe various approaches and results.

Outcomes: Communities have successfully introduced screening programs and are increasing the number of people receiving treatment.

Conclusions: Screening and brief intervention is a proven, cost-effective method of identifying and treating substance use disorders which, if left undetected, can mask or cause other health problems. Communities can develop and implement inexpensive screening programs that will significantly improve health and safety.

Creating and Sustaining an Effective Community Advisory Board for Prevention Programs in Public Housing (RT-42)

Authors: *D. Bunte; J.W. Hunt, Jr.; T. Hampton; H.P. Hynes; R. Keske*

Purpose of the Program: To advise on the conceptualization, design, and implementation of all project activities of the Partners in Health and Housing Prevention Research Center (PHH-PRC) and provide on-going guidance to the center on planning and operations.

Setting: An advisory committee to the PHH-PRC.

Interventions: The Community Advisory Board (CAB) consists equally of public housing residents and representatives of health and social service community organizations. Through the composition of its leadership and membership and the structure of its meetings, the CAB was designed to have a prominent role in all major decisions of the center, including determining priorities for future projects and new partnerships and serving as a forum for advice on current projects.

Outcomes: CAB members have advised the GirlStars Program on ways to augment recruitment and have made recommendations to the Waging Peace pilot project concerning the safety of resident health advocates working on domestic violence issues. The CAB also generated a list of health priorities of public housing residents that was used in the selection of the core and research projects for the PHH-PRC renewal proposal.

Conclusions: The CAB is effective in advising and guiding the PHH-PRC about current projects and future priorities and activities because of its leadership, its membership, and the communication and accountability that is built into the structure of meetings between the CAB and the center partners.

Heart Disease: Community Prevention and Treatment Initiative (RT-43)

Authors: B. Wheeler; E. Pollak; G. O'Connor; R. Rowe; S. LaFrance

Purpose of the Program: To engage clinicians and community-based agencies in a coordinated effort that uses evidence-based approaches to improve cholesterol screening and treatment and promote physical activity to reduce cardiovascular disease.

Setting: New partnerships in four New Hampshire communities that serve low-income, rural residents were formed. The partnerships involve health centers, medical practices, hospitals, visiting nurses, and human service agencies. The project addresses three objectives of New Hampshire People 2010.

Interventions: The selected interventions include a media strategy, community cholesterol screenings and walking events, a pedometer library-lending program, data feedback on clinician performance, flow sheets and reminder systems, mini-records kept by patients, and tailored office system designs.

Outcomes: Results of targeted Behavioral Risk Factor Surveillance System (BRFSS) surveys and medical chart audits in primary care settings in each community were used to establish baseline and outcome performance measures. This information provided a framework that community partnership members used to select their evidence-based interventions.

Conclusions: The 2001 revision in national guidelines for cholesterol screening created a challenge. One way to meet this challenge is to tie the promotion of community-based opportunities for physical activity to cholesterol screening and treatment; linking such community-based health efforts to clinical providers in the community can improve the ability of these providers to reduce the level of risk factors for cardiovascular disease among community members.

Skill Development for Community-Based Participatory Research Partnerships (RT-44)

Authors: *Community-Institutional Partnerships for Prevention Research Group (a collaborative group formed by an ASPH/ CDC grant that involves nine partner organizations, including Community-Campus Partnerships for Health, Prevention Research Centers (PRC), Urban Research Centers, Kellogg Community Health Scholars Program, the American Public Health Association Caucus on Community-Based Public Health, and the CDC PRC National Community Committee).*

Purpose of the Program: To develop new knowledge about the social and ecologic determinants of health through community-institutional partnerships for prevention research to better address priority health issues from the community's perspective and improve the public's health.

Setting: Partnerships between communities, universities, and public health agencies have become central to the national public health practice and research agenda.

Interventions: The working group synthesized knowledge about community-based participatory research (CBPR) partnerships across multiple partner organizations.

Outcomes: The group has identified characteristics of successful CBPR partnerships, factors that facilitate and impede success, and strategies for building the capacity of communities, public health agencies, and academic institutions to engage in CBPR. The group has also developed a training curriculum for CBPR partnerships that will be shared during this session.

Conclusions: Building the capacity of communities and institutions to engage in participatory approaches to public health prevention research is an effective approach for translating community interventions in public health and prevention into widespread practice at the community level.

The Move & Improve Program: A Wellness Initiative of Eastern Maine Medical Center (RT-45)

Authors: W.S. Lagasse; M. Polacsek

Purpose of the Program: To improve the health and quality of life of community members and to reduce their risk for chronic diseases and obesity by promoting physical activity.

Setting: The Move and Improve (M&I) Program began in 1997 with grant support from the Maine Bureau of Health. Using the expertise of the diverse 20-member M&I coalition, this program has been structured for work sites, schools, and senior centers statewide. The program is administered through the Eastern Maine Medical Center (EMMC) Community Wellness Service in Bangor, Maine.

Interventions: The M&I Program recruits site coordinators and supports them through training, regular communication, and encouragement. Site coordinators disseminate research-based information provided by M&I on a weekly basis, and motivate participants to attain the M&I physical activity goal of engaging in 30 minutes of physical activity on at least 4 days/week for 12 weeks.

Outcomes: Participation has increased over time. In 2003, 61% of over 9,000 participants indicated that they were exercising at the recommended moderate level of physical activity, and 40% indicated they that they had increased their level of physical activity. Participants also reported other positive effects such as weight loss, reduced stress, and reduced absenteeism.

Conclusions: The Move and Improve Program has enjoyed success on multiple levels and has incorporated ongoing program evaluation for quality improvement.

Utilization of Network Analysis for Strengthening Community Partnerships in Health (RT-46)

Authors: K.G. Provan; M.A. Veazie; L.K. Staten; and N.I. Teufel-Shone

Purpose of the Program: To introduce health researchers and community organizers to network analysis methods as a way of helping communities build capacity.

Setting: The CDC-funded Southwest Center for Community Health Promotion, at the Arizona College of Public Health, University of Arizona, has been working with communities along the Southwest border to assist in building capacity to prevent, diagnose, and treat chronic disease. One aspect of this work has been to assess and track progress in building collaborative partnerships.

Interventions: Data were collected in two communities from a variety of health and human service organizations actively trying to work together to reduce the prevalence of chronic disease. Data were analyzed using network analysis methods, revealing the structure of partnership relations and their evolution over time. Findings were reported back to each community with significant discussion of results.

Outcomes: Findings revealed which agencies were most central and which were most peripheral in the flow of patients, information, and resources. Attitudes toward collaboration, trust, and network influence were also presented and discussed.

Conclusions: Based on the presentations and discussion of findings, an approach was developed to enable communities to utilize network analysis methods in a practical way. This approach, guided by a series of eight questions, is designed to allow agency and community leaders to understand more thoroughly what their network actually looks like and how it might be strengthened to improve community health.

Genomics and Chronic Disease Programs: Anatomy of the Integration Process (RT-47)

Authors: J.V. Bach; J.C. Chabut; F.P. Downes; S. Lyon-Callo; C. Schott

Purpose of the Program: The purpose of the Genomics Program is to incorporate genomics into chronic disease and other public health programs and thereby improve prevention efforts and health outcomes.

Setting: The Genomics Program of the Michigan Department of Community Health (MDCH) is a collaboration of MDCH's arthritis, asthma, cancer, cardiovascular disease, diabetes, environmental health, and laboratory programs, and MDCH's external partners. These external partners include the Michigan Center for Genomics and Public Health, Michigan Cancer Genetics Alliance, Michigan Public Health Institute, and state units of voluntary health organizations.

Interventions: The development of the MDCH Genomics Program involved changing a traditional state health department genetics services program with a focus on newborn screening and rare, single-gene disorders to a program that encompasses the broader mission of public health, including chronic disease prevention and health promotion. With limited resources, the MDCH undertook several activities to facilitate this transition, including hiring a coordinator to mobilize internal and external partners, assessing and capitalizing on current science-based opportunities for integration, and establishing ongoing opportunities for education and skill building among staff and partners.

Outcomes: With limited resources, the MDCH translated genomics research into practice and integrated genomics knowledge into several chronic disease and other cross-cutting programs. In addition, the lessons learned by MDCH participants from programs where research and public health applications of that research are not as advanced helped prepare them to better educate their own staffs, build partnerships, and monitor new scientific findings.

Conclusions: With limited resources, state health departments can successfully integrate genomics into their programs.

Schooled in Asthma: Physicians and Schools Managing Asthma Together (RT-48)

Authors: H. Taras; L. Feltz

Purpose of the Program: To develop, implement, and evaluate a training program encouraging pediatricians to incorporate school health concepts with current asthma treatment guidelines.

Setting: The American Academy of Pediatrics (AAP) has received funding through a cooperative agreement with the Centers for Disease Control and Prevention (CDC), Division of Adolescent and School Health (DASH). Members of the AAP Committee on School Health and Section on Allergy and Immunology collaborated with school health experts from the University of California, San Diego to develop an educational seminar for pediatricians in selected AAP chapters. Seminars took place at the AAP national headquarters.

Interventions: Each educational seminar lasts 1½ days, after which participants have access to 12 months of technical assistance to help facilitate their quality improvement practices. The first educational seminar took place in April 2003. Continuing Medical Education Category 1 credits were provided to participants.

Outcomes: Fourteen pediatricians attended the April seminar (nine from Washington, five from Alabama). One nurse practitioner and two AAP chapter executive directors also attended. Participants identified at least two management improvements needed in their own practice. Chapters identified one procedural, financial, policy, or other system-wide problem in their respective states (or local school districts). Participants were interested in using techniques that could lead to practice modification. Pediatricians responded well to working collaboratively with one another on an advocacy-related project and reported wanting a PowerPoint presentation and other tools.

Conclusions: Pediatricians appear to be open to modifying their practice habits and to working collaboratively. Working with state-chapter offices of a large national physician organization is a feasible way to recruit pediatricians for interventions and to increase their interest in public health-related activities.

Six-Month Health/Behavior Outcomes, Savings for the Washington State Medicaid Disease Management Program (RT-49)

Author: A. Lind

Objective: To examine the health impact of a disease management (DM) program on about 15,000 Medicaid beneficiaries.

Setting: The Washington State Department of Social and Health Services is mandated to positively affect Medicaid beneficiary health. Using telephonic and community-based nurses, the program improved beneficiaries' health outcomes and generated financial savings for the state.

Method: Outcomes were measured through pre- and post-program assessments. Analysis included a statistical investigation of clinical indicators to determine the significance of program-related changes. For most outcomes, McNemar's test was used to compare initial assessment findings with re-assessment findings following program participation.

Result: Program participants showed significant improvements in a number of clinical indicators: the percentage with an asthma action plan increased to 26% from 9% (over 12 months); the percentage with no asthma symptoms increased to 37% from 22%; the percentage who had had a foot exam increased to 88% from 79%; the percentage who reported accomplishing less because of poor physical health decreased to 36% from 55%; the percentage who weighed themselves daily increased to 62% from 35%; and the percentage with no heart failure symptoms increased to 23% from 16%.

Estimated savings for the first year are \$247,666 (asthma); \$374,445 (heart failure); \$898,921 (diabetes); and \$680,000 (kidney disease).

Conclusion: A structured DM program that leverages physician involvement and periodic telephonic and/or face-to-face nurse contact can improve participants' health by promoting behavior modification while also saving money for Medicaid organizations.

Health-Related Quality of Life Among Mississippi Adults with Arthritis (RT-50)

Authors: L. Zhang; V. Sutton; W. Magers

Objective: To examine the difference in health-related quality of life (HRQOL) among Mississippi adults with and without self-reported arthritis.

Setting: To increase the quality and years of healthy life and eliminate health disparities in the U.S. population are the overall goals of *Healthy People 2010*. Four measures in the Behavioral Risk Factor Surveillance System (BRFSS) help states to assess progress in HRQOL. However, few studies have been done on HRQOL among adults with arthritis in Mississippi.

Method: In 2001, 3,043 Mississippi adults aged 18 years or older participated in the BRFSS survey. A cross-sectional study was used to compare HRQOL among Mississippi adults with arthritis, defined as chronic joint symptoms (CJS) or doctor-diagnosed arthritis, and those without arthritis. SAS 8.2 and SUDAAN 8.02 were used to tabulate data and to investigate the difference between these two groups.

Result: Mississippi adults with arthritis had significantly worse HRQOL than those without arthritis. In other words, respondents with arthritis were more likely to report poor overall health status and to have more unhealthy days (mental and physical) in the previous month of the survey. Moreover, the average days of activity limitation for respondents with arthritis were significantly higher.

Conclusion: The results are useful in monitoring the burden of arthritis and in tracking the progress of population intervention for arthritis in Mississippi.

Prevalence of Physical Activity and Sports Team Membership Among Texas 4th, 8th, and 11th Graders (RT-51)

Authors: S. Kelder; D. Hoelscher; C. Barroso; J. Ward; S. Day; R. Frankowski; E. Lee

Objective: To examine the statewide prevalence of physical activity and sports team membership among representative samples of 4th-, 8th-, and 11th-grade children in Texas.

Setting: Physical activity (PA) and sedentary behaviors are closely related to childhood obesity. The Youth Risk Behavior Surveillance System (YRBSS) provides data on high school students but not on younger students.

Method: The School Physical Activity and Nutrition (SPAN) study was designed as a surveillance tool for states to monitor students' body mass index (BMI), PA, and nutrition at three grade levels. Probability sampling in Texas (total n=15,123) during 2000–2002 ensured adequate representation by gender and race.

Result: Among 4th-graders, 83% had engaged in vigorous PA and 53% in moderate PA during the prior day; 55% attended physical education (PE) 3+ days per week; 75% played on at least one school sports team; and 24% watched 3+ hours of television (TV). Among 8th-graders, 80% reported 3+ days/week of vigorous PA, and 55% reported moderate PA; 66% attended PE 3+ days per week; 52% played on at least one school sports team; and 49% watched 3+ hours of TV/day. Among 11th-graders, 71% reported 3+ days/week of vigorous PA, and 55% reported moderate PA; 35% attended PE 3+ days per week; 51% played on at least one school sports team; and 32% watched 3+ hours of TV/day.

Conclusion: Results indicated room for improvement in students' level of physical activity, a small reduction in PA with increased age, and a large reduction in PE participation with increased age.

The Alamosa Farmer's Market Project (RT-52)

Authors: K. Baer; M. Flemming; C. Morin; M. Dunnahoo; T. Uyeki; J. Vigil

Purpose of the Program: To increase consumption of fruits and vegetables among low-income families living in a rural setting.

Setting: Healthy Habits, a community coalition promoting 5 A Day and regular physical activity, implemented two programs over the last two summers at the local Farmers' Market consisting of food samples, recipes, and coupons redeemable for fresh produce at the market.

Interventions: Families in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) were given produce coupons at their quarterly appointments. The second program, Active Food Friends, gave Head Start families the opportunity to earn produce coupons by being physically active as measured by pedometers and workbooks. The workbooks suggested weekly, fun, and interactive walking activities for the family.

Outcomes: Redemption rates, survey data, and qualitative interviews all suggested that the WIC intervention was well received. There was a 72% coupon redemption rate in year 1, and families felt that their children were eating more produce. A total of 63% of families completed the Head Start workbook. Of these families, 80% enjoyed workbook activities and found them easy to use. A total of 46% of Head Start adults recorded their daily steps. Of these families, 68% set goals, and 77% of these adults achieved their goals of increased steps/day. A total of 34% of children set physical activity goals and of these, 75% reached their goal. The Head Start coupon redemption rate was 75%.

Conclusions: Farmers' Market coupons provide an opportunity for low-income families to purchase fresh produce. Workbooks and pedometers can be successfully used to encourage young children aged 3–5 years and their families to increase physical activity.

The Game of Health: Creating Healthy People (RT-53)

Authors: R. Courtney; S.E. Conard

Objective: To evaluate the outcomes of an innovative small-group education program in cardiovascular disease (CVD)/diabetes mellitus (DM) prevention offered in a family practice.

Setting: A 10-clinician private family practice dedicated to CVD and diabetes prevention strategies.

Method: A 12-week medically supervised curriculum including a workbook and DVDs featuring an entertaining baseball framework was developed to target high-risk patients who required lifestyle modification. Patients participated in weekly 1-hour sessions at the clinic and had their lipids, body composition, and health practices monitored.

Result: Program participants (n=350) were equally divided between men and women and had an average age of 47 years. They rated the Game of Health very positively: 70% lost weight (average, 6 pounds) along with fat mass; 60% reduced their total cholesterol (average, 15%), LDL cholesterol (20%), and triglycerides (18%). All participants increased their water intake (90%), deep breathing (82%), exercise (78%), and sleep (68%) over the course of the program.

Conclusion: A family practice can successfully provide intensive lifestyle education using the fun, creative, effective "Game of Health." Now, two work sites are offering the Game of Health to employees with positive outcomes.

Evidence-Based Public Health Decision Making for Chronic Disease Prevention (RT-54)

Authors: K.E. Peters; W.W. Baldyga; E.A. Sternberg

Purpose of the Program: To describe the components and evaluation of a training course designed to increase knowledge of evidence-based principles and systematic approaches in contemporary public health practice and chronic disease prevention.

Setting: A 2-day modular training course sponsored by the Illinois Prevention Research Center has been developed and evaluated by an interdisciplinary faculty team from the University of Illinois at Chicago (UIC) School of Public Health and the Center for Rural Health Professions at the UIC College of Medicine - Rockford.

Method: Through lectures, practice exercises, and case studies, course participants learn a comprehensive approach to program development and evaluation from a scientific perspective, as well as how to access and interpret existing data systems and methods of using data to impact specific policies or decision makers concerning chronic disease prevention.

Result: By the end of the course, participants are able to use analytic methods and data to develop a logic model, construct issue statements, conduct literature reviews, describe issues in a quantitative way, develop program or policy options, create program or policy plans, and evaluate programs or policies.

Conclusion: The training course provides opportunities and resources for professionals in the public health field with systematic techniques for using scientific evidence to make programmatic and health policy decisions related to the prevention and control of chronic diseases and their risk factors.

Improved Program Planning by Integrating Science-Based Outcome Indicators in an Online Progress Reporting System (RT-55)

Authors: L.J. Petersen; J.H. Chrismon; D.S. Lyalin; C.P. Callahan

Purpose of the Program: To increase the quality and consistency of state plans, and improve program decision-making by integrating standard data elements into an online program planning and progress reporting system.

Setting: Grantees of the CDC's National Tobacco Control Program (NTCP) provide annual plans detailing objectives, activities, and budgets. Diverse plans, often inconsistent in quality, challenge the ability to provide standardized technical assistance and training. Realizing the utility of a system to collect budget, plan, and progress reporting information, the Office on Smoking and Health designed the NTCP Chronicle, an online reporting system used by 58 CDC-funded state and territorial tobacco control programs. Stakeholder needs and plan and reporting requirements were defined using multiple methods (public health, informatics, and engineering).

Interventions: Key indicators were incorporated into the Chronicle's plan definition requirements, emphasizing standardization across programs yet allowing for flexible objective setting at the state level. The Chronicle encourages states to provide consistent program information by tracking program objectives (process, short-, intermediate-, and long-term), objective baseline and target measurements, indicators and data sources, and other critical program variables.

Outcomes: Budget development using the Chronicle should reduce errors and omissions, and thus, administrative burden.

Conclusions: Through indicating linkages between objectives, users provide logical outcome progression and establish evaluation measures that allow for improved tracking of long-term health outcomes. Improved plan definition helps federal managers to effectively assess program need and progress, and ensure accountability.

Research Translation: Knowing When to Begin and End (RT-56)

Authors: E.J. Simoes; R. Glasgow

Purpose of the Program: This session will describe the RE-AIM framework of reach, efficacy or effectiveness, adoption, implementation, and maintenance as critical features of the research planning process to strengthen the potential translation of prevention research into practice.

Setting: To achieve the national goals in *Healthy People 2010*, improvements are needed in the translation of public health science into practice.

Interventions: The RE-AIM framework provides a model for organizing these elements by asking questions about which intervention to deliver to which audience, identifying strategies to improve intervention success, and comprehensively assessing the potential import of the intervention. We describe each of the components of the RE-AIM framework, the steps in operationalizing the components, and how to monitor them throughout the research process. This framework is guided by the principles of participatory research and has a focus on external validity. We discuss how each of these recommendations can enhance linkages between researchers and communities to improve population health.

Outcomes: We discuss the opportunities and challenges faced by researchers and communities when trying to address the question of when we move from research translation to program delivery.

Conclusions: The following set of questions will be explored: 1) What are the key parameters that can guide researchers, funders, and delivery agents in deciding when dissemination research is complete? 2) What are the necessary criteria by which CDC and other agencies can decide what is required for diffusion? 3) How do we determine who should be involved in the diffusion process?

The Body and Soul Program: A Partnership to Translate Effective Research into Practice (RT-57)

Authors: A. Williams; M. Campbell; K. Resnicow

Objective: Body and Soul is a faith-based program that encourages African Americans to increase their consumption of fruits and vegetables to reduce their risk for diet-related chronic diseases. It is based on interventions that showed positive effects when evaluated under efficacy conditions. The primary investigators collaborated with a community-based organization and government agency to translate the research into a program that could be implemented under real-world conditions. A randomized effectiveness trial of the translated program showed improvements in fruit and vegetable consumption among participants.

Setting: This program is delivered in African American churches.

Method: This program used a variety of intervention strategies, including 1) pastor involvement; 2) church-wide educational activities; 3) changes in the church environment to increase access to fruits and vegetables; and 4) peer education.

Result: The effectiveness trial of the Body and Soul program indicated a statistically significant increase in fruit and vegetable consumption of .5 daily servings. The program also showed significant increases in self-efficacy, intrinsic and extrinsic motivation, and a decrease in fat consumption. The result of the evaluation of this program suggests that research interventions can be effectively translated into a program that can be disseminated under real-world conditions.

Conclusion: The Body and Soul Program is being implemented in various churches in collaboration with the 5 A Day Program.

The Effectiveness of School-Based Nutrition Interventions: A Systematic Review in the Guide to Community Preventive Services (RT-58)

Authors: L.M. Anderson; L.T. Smith

Purpose of the Program: To alter the school environment in a way that changes dietary intake and activity levels among school-age children to improve health and physical fitness.

Setting: Schools

Interventions: *The Guide to Community Preventive Services: Systematic Reviews and Evidence-Based Recommendations* conducted systematic reviews of interventions in the school setting to examine program effectiveness, barriers to implementation, and cost-effectiveness of school-based nutrition interventions.

Outcomes: Knowledge, behaviors, physiologic indicators, health status, school achievement

Conclusions: This systematic review shows that comprehensive, multicomponent nutrition programs can increase children's intake of fruits and vegetables, and decrease fat intake. Results of these systematic reviews can be used for program and policy decisions and advocacy for altering the school environment to improve health.

A Model for Comprehensive Strategic and Evaluation Planning (RT-59)

Authors: D.J. Holden; A. DeGroff; S. True; P. Rochester

Purpose of the Program: To accomplish comprehensive evaluation planning, one must develop processes and tools that allow for ongoing key stakeholder input and provide a system for implementing the plan. Through a series of stakeholder sessions, we created a comprehensive evaluation planning matrix that specifies the goals and objectives of CDC's National Breast and Cervical Cancer Early Detection Program (NBCCEDP), as well as program activities and their relationship to identified outputs and outcomes of the program over the next 5 years. CDC is now using the information in this strategic plan to prioritize program evaluation activities.

Setting: CDC, through the NBCCEDP, initiated an evaluation planning process in 2002.

Interventions: Early in this process, it was determined that a strategic plan should be articulated so that evaluation needs could be identified and prioritized. There are few models for comprehensive evaluation planning, and none have been used to address a national program like NBCCEDP.

Outcomes: Because of the increased emphasis in federal programs on accountability to taxpayers (e.g., the development of the Program Assessment Review Tool [PART] and systematic evaluation planning), federally funded initiatives eager to demonstrate their effectiveness need to demonstrate such accountability.

Conclusions: At the end of the session, participants will be able to discuss the relationship between strategic and evaluation planning and how each can be used to benefit the other in program development.

Developing a Comprehensive Community-Based Diabetes Management System (RT-60)

Author: D.G. Kelling, Jr.

Purpose of the Program: To determine if a comprehensive community-based diabetes management system using a computer database can improve the quality of care for people with diabetes.

Setting: Since 1995 NorthEast Medical Center in Concord has been developing a comprehensive diabetes management system using a computer program that was created internally with some third-party technical support. Currently, 40 physicians in 13 clinics in our county have 7,000 patients with diabetes enrolled in the program.

Interventions: Relevant data such as HgbA1C, blood pressure, lipids, and proteinuria are entered into the database when patients are enrolled and continued in an ongoing basis. Participating physicians have computer access to their patients' data to help risk-stratify patients seen in the office on a regular basis. Physicians receive reports summarizing their outcomes in managing risk factors associated with complications of diabetes.

Outcomes: Six-year outcomes from one clinic with 800 patients with diabetes show the percentage of patients with HgbA1C <7% has increased from 26% to 70%; the percentage of patients with LDL cholesterol <100 has increased from 21% to 57%; and the percentage of patients with blood pressure <130/80 has increased from 20% to 53%.

Conclusions: A comprehensive community-based diabetes management system can substantially improve the care of patients with diabetes.

Developing and Using Indicators in Program Evaluation (RT-61)

Authors: M. Schooley; S. Porter; E. Wiesen

Objective: CDC's Office on Smoking and Health (OSH) assists states and territorial tobacco control program evaluation efforts under the National Tobacco Control Program (NTCP). The purpose of this project was to identify "key" or "leading" short-term, intermediate, and long-term outcome indicators that can be used to monitor and evaluate comprehensive state-level tobacco control programs. This project will lead to an indicator report.

Setting: The report can be used to guide the development and implementation of state-level outcome evaluation plans, and will help OSH determine evaluation criteria for the NTCP, assess best practice recommendations, and provide consistent surveillance and evaluation technical assistance to states.

Method: Indicators were identified based on the existing science, expert opinion (advisory panel), and state practices. Indicators are organized by Outcome Components ("boxes") in the logic models for Goal Areas 1, 2, and 3 of the NTCP.

Result: The report summarizes the scientific evidence for each outcome component and, within each component, presents a list of indicators and tables displaying consensus ratings by expert panelists. Recommended data sources and measures are also offered for each indicator.

Conclusion: The report is consistent with *Healthy People 2010* and OSH goals and objectives to reduce disease, disability, and death related to tobacco use.

Discovering What Works: Understanding Strengths of Evidence (RT-62)

Author: P. Briss

Purpose of the Program: All public health programs need to identify and use techniques that will reliably improve public health outcomes. It is difficult to select reliably effective techniques, however, because decision makers often cannot find clear, unambiguous evidence about what works. This session will provide a systematic review of the kinds of evidence available and their strengths, weaknesses, and appropriate uses. It will also provide decision makers with practical guidance for finding and evaluating the most appropriate interventions for use.

Get Your Screen Test (RT-63)

Author: K. Rowley

Purpose of the Program: To help physicians assist patients in identifying their individual cancer screening needs and motivating them to become up-to-date in their screening.

Setting: The Utah Cancer Action Network (UCAN) and the American Cancer Society (ACS) collaborated to provide the “Get Your Screen Test!” program to Utah health care providers and their patients. The program was developed by the Denver ACS office and pilot tested in Denver, Colorado.

Interventions: Evaluation questions: Did the health care providers implement the “Get Your Screen Test!” program? Did they discuss appropriate screening tests with their patients, and did their patients receive appropriate tests?

Outcomes: Providers and their patients worked together to determine patients’ need for screening tests and to comply with the ACS screening test recommendations. Responses to cancer screening questions from both the national and Utah Behavioral Risk Factor Surveillance System will be used for comparison.

Conclusions: The “Get Your Screen Test!” program provides health care providers with tools they can use to discuss cancer screening with adult patients who visit their office for checkups or other routine care. An evaluation survey will measure the program participation level, the effectiveness of the program, and outcomes.